The Times and Register.

VOL. XXXI. No. 1. PHILADELPHIA AND BOSTON, JANUARY 4, 1896. WHOLE No. 903.

FRANK S. PARSONS. M.D., - Editor, DORCHESTER, BOSTON, MASS.

JOSEPH R. CLAUSEN, A.M., M.D., Manager, PHILADELPHIA, PA.

.....EDITORIAL STAFF.....

W. H. PANCOAST, M. D., Philadelphia.
T. H. MANLEY, M. D., New York, N. Y.
E. W. BING, Chester, Pa.
S. H. MONELL, M. D., Brooklyn, N. Y.
A. D. DAVIDOW, M. D., New York, N. Y.
LOUIS LEWIS, M. R. C. S., (Eng.) Philadelphia, Pa.
J. A. TENNEY, M. D., Boston, Mass.
E. B. SANGREE, A. M., M. D., Philadelphia, Pa.
F. E. CHANDLER, M. D., Boston, Mass.
HENRY BURCHARD, M. D., D. D. S., Phila., Pa.

Original

THE RELATION BETWEEN THE DISEASE OF INEBRIETY AND THE MORPHINE HABIT, AND TESTAMENTARY CAPACITY.*

BY EDWARD C. MANN, M. D., F. S. S.

Physician to Sunny Side Private Hospital for Nervous and Mental Diseases, New York; member Medical Society of the County of New York, Member Brooklyn Pathological Society; member New York Medico-Legal Society; associate member Societe Medico-Phychologique, Paris, France; Hon. member Scientific Section, Imperial University, Kharkoff, Russia; fellow and gold medalist Society of Science, Letters and Art, London, etc., etc.

The general principles in relation to the capacity of a person to make a will are that he must be of sound and discerning mind and memory, so as to be capable of making a testamentary disposition of his property with sense and judgment, in reference to the situation and amount of such property, and to the relative claims of different persons who are, or might be, the objects of his bounty. Just what degree of mental weakness or impairment shall be held to destroy testamentary capacity has given rise to much discussion and varying opinions. It has been erroneously asserted that the most pronounced imbecility and weakness of mind will not invalidate a will, unless the testator be an absolute idiot, but in 1862, in the famous Parish will case, this view was challenged and overthrown.

Frequently the sick, who might have sufficient capacity to properly dispose of their estates if left to themselves, have not strength to resist the threats and improper pressure brought to bear upon them, or discernment to detect the fraud practiced upon them, and the test in such cases must be whether the mind and will of the testator was the operating agent, or whether it was so overborne and deluded that the act in question was the product of the mind and will of another. The testator must possess the requisite strength of mind to act independently and to exercise his own judgment and will. Anything is undue influence which amounts to constraint, and which substitutes the will of another for that of the testator. The testator must enjoy full liberty and freedom in the making of his will, and possess the power to withstand all contradiction and control. Any degree of importunity or undue in-

Read before the Medico-Legal Congress held in New York, September, 1895.

fluence which deprives a testator of his free agency in influence which he is too weak to resist, and that will render the instrument not his free, unrestrained act, is sufficient to invalidate a will. In the disease of inebriety, and in the morphine habit at times, there is weakness and infirmity, and the unscrupulous and crafty are quick to take advantage of it and with alacrity impose upon that condition in which a sick or feeble person will assent to almost any suggestion for the sake of peace and quiet. It is often difficult to determine, unless a patient has been under careful medical treatment, to what extent the mind in these cases is impaired, and the will enfeebled. With regard to undue influence in these cases, also, it is not often the subject of direct proof. It can be shown, however, by all the facts and circumstances surrounding the testator—the nature of the will, his family relations, the condition of his health and mind, his dependency upon, and subjection to, the control of the person supposed to have wielded the influence, the opportunity and disposition of the person to wield it, and other acts and declarations of such person. It is not sufficient to a will that it is obtained by the legitimate influence which affection or gratitude gives a relative over the testator. A competent testator may bestow his property upon the objects of his affection, and he may from gratitude reward those who have rendered him services; but if one takes advantage of gratitude or affection to obtain an unjust will in his favor, using his position to subdue and control the mind of the testator so as substantially to deprive him of the use of his free agency, then the fact that affection and gratitude was the moving cause makes it no less a case of undue influence. In the disease of inebriety and in the morphine habit we have, certainly, at times, an enfeebled mind and body, where it is very easy for the dominant will of some relative or friend to destroy the free agency of a decedent and operate for their own personal aggrandizement. If any given will is manisfestly an unjust one, and disregards the ordinary obligations of duty and affection, it should be viewed with suspicion. A will or testament may by its provisions furnish intrinsic evidence involving it in suspicion and tending to show the incapacity of the testator to make a disposition of his estate with judgment and understanding, in reference to the amount and situation of his property, and the relative claims of the different persons who should have been the objects of his bounty; such as the disposition of his estate to the exclusion of near and dear relatives having the strongest natural claims upon his affections, a wife and children, for instance, or other near and dear relations, without apparent cause, which alone would be a suspicious circumstance, although not proving, per se, sufficient ground for setting aside the will.

We must consider together the three factors of the mental condition of the testator, the presence or absence of undue influence and the character and terms of the will itself in arriving at a proper conclusion as to the upholding of the instrument or will.

In determining the mental condition of the testator the opinions and testimony of those not experts, but who have had opportunities of observing the decedent, ought to be received. A non-expert may frequently be able to tell very intelligently whether the testator seemed to him sane or insane, rational or irrational. An intelligent person who has been daily in the society of a testator is frequently an excellent judge of his sanity or insanity, and for my own part, I always welcome such opinions, founded on personal observation, as an aid to me in arriving at my conclusions. We must understand that the dipsomaniac in the intervals between his paroxysms has a lucid interval, and at such times may make a will. There comes a time, however, in the history of nearly all inebriates and of opium habituates, when the disease has been so extended as to actually impair the functions of the mind, practically without cessation, and this should invalidate a will. Such a case must be regarded in the same light as a case of mental

derangement produced by any other cause. Again, take the case of the morphine habituate, when deprived of the customary stimulus. The functions of the mind are in such a case most markedly impaired if the person is taking opium or morphine in any quantity, and a will made at such a time is open to grave suspicion of its propriety. Of course, when fixed mental disease has supervened upon either inebriety or the opium habit, the man or woman is incompetent and irresponsible for his or her acts. If the person is so excited by either present intoxication or from the effects of morphine as not to be master of himself, his legal acts are void. An insane delusion affecting the provisions of a will must, of course, invalidate it. Physicians are frequently requested to act as subscribing witnesses to wills, but should never allow themselves to do so, unless thoroughly satisfied of the mental soundness of the testator, and that the testator understands the provisions of the will, and that it is his own act, and not that of another mind. No person is justified in putting his name as subscribing witness to a will unless he knows from the testator himself that he understands what he is doing. The witness should also be satisfied from his own knowledge of the state of the testator's mental capacity that he is of sound and disposing mind and memory. By placing his name to the instrument the witness, in effect, certifies to his knowledge of the mental capacity of the testator, and that the will was executed by him freely and understandingly, with a full knowledge of its contents. This is the legal effect of the signature of the witness when he is dead or out of the jurisdiction of the Court. Finally, no lawyer is justified in preparing or assisting in or consenting to, the execution of a will unless he knows personally that the testator fully understands what he is about, and unless he has thoroughly satisfied himself of the testator's mental capacity and freedom of action, and he should never accept suggestions or directions from a third party.

259 West 136th street, New York.

A PRACTICAL STUDY OF THE BLOOD AND THE CIRCULATION, WITH A HISTORICAL REVIEW OF THE SUBJECT AND ITS BRIEF CONSIDERATION FROM THE STANDPOINT OF ITS CHEMICAL COMPOSITION, ANATOMICAL STRUCTURE, AND PHYSIOLOGY; INCLUDING CLINICAL STUDIES, AND EXPERIMENTAL RESEARCH ON THE LOWER ANIMAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

Continued from last number.

THE PLASMA AND CORPUSCLES OF THE BLOOD.

PART XVI.

The corpuscular elements of the blood float in a fluid, called plasma. This is alkaline in reaction, of a light amber color and consists chiefly of water. It carries in solution the various nitrogenized and inorganic substances. It is the vehicle of the corpuscular elements and evidently penetrates the finer histological elements, that the corpuscles cannot enter. Its density evidently varies, under changing physiological conditions. It is highly vitalized and possessess, in a high degree, the power of neutralizing or destroying elements foreign to the body.

It possess many features not unlike milk deprived of its fat. What its special, definite functions are in the finer processes of nutrition are not definitely known, though they no doubt are vastly more complex than those of the corpuscles.

As it decomposes almost at once, after it is discharged from a blood-vessel, an accurate study of it is quite impossible. Various physical conditions and chemical reagents will retard the coagulation of fibrin in it; but even this does not imply that its vitality has not been greatly impaired or destroyed by them. In its natural state, plasma is a fluid, containing a ferment which, when liberated, leads to a coagulation of the blood, and exercises a potent influence in the repair of wounds. This is most manifest in clean-cut surfaces, when the surface transudes an amber-colored, gluey material, which favors cohesion.

Of late years, the view has been, that in primary union permanent cohesion is effected by cellular proliferation, rather than through the organization of what has been miscalled "lymph." This, after being effused, becomes reticulated and moderately vascular, although never to the extent of normal tissues, because of the tendency of all transient capillaries to become resorbed and disappear.

The plasma calls for a liberal supply of water in order to maintain its proper fluidity, which after flushing the tissues, takes effete materials and throws them off, in vapor from the lungs, in urine from the kidneys, in perspiration from the skin, and through the intestine. In cholera it is supposed that the unquenchable thirst of that disease, in severe forms, depends on the excessive fluid discharge by the bowel and a thickening of the blood. This is, perhaps, in the main correct, as thirst is always present when there are large discharges from the body, as of the blood itself, in hemorrhage, etc.; but in peritonitis, without any morbid discharges, except occasionally vomiting, the thirst is sometimes insatiable and most agonizing.

The plasma has the property of freely passing through the blood-vesvesls in normal and morbid conditions of health. We have seen that it is in the medium through which all epithelial structures are supplied, as well as the finer histological elements of every other tissue in the body, passing out through the walls of the capillaries with the necessary pabulum to maintain its vitality and functions and returning through the vessel's walls to be carried onward in the venous current, back to the centre of the circulation. The plasma escapes through the capillary walls in enormous quantities, under a multiplicity of pathological conditions, though generally considerably altered in its chemical, physical and histological composition.

It is most remarkable how tenaciously we cling to terms which have once become current, although there never has been rational grounds for their employment. Thus, we everywhere see scattered through modern medical literature the word "serous effusion," in local or organic inflammation, which we know for a certainty, in all osmoses concomitant with it, those effusions contain an abundance of fibrogenous elements.

Although, of late years, the blood corpuscles have been specially studied, they really are of secondary importance as compared with the fluid in which they float.

Before the days when the microscope was so generally employed and cellular pathology was promised to explain so much, the chemistry of the blood occupied a prominent place in medical studies. But, with the exception of attempting to isolate a few more proximate principles, for the past twenty years chemistry has added but little to our knowledge of hematology.

Perhaps, the custom of relying too exclusively, in our practice, on the light coming through the microscope, to the exclusion of chemistry, has been a mistake.

It may be partly explained, however, that in order to derive any definite information through a chemical examination of those fluids which are derivatives from the blood, nothing less than an expert knowledge of

chemistry will answer; as a well-equipped laboritory and all those accessories in technique of manipulation, reliable reagents, etc., are indispensable, in order to avoid error and attain to precise results.

The plasma, it must be remembered, is a living, physiological fluid, probably more intimately associated with the corpuscles, than is generally supposed and, though there are of late years; reasons for believing that the red bone marrow, the lymphatics and the thyroid are concerned in the production of the blood corpuscles, we have no proof that they are not generated in the plasma itself.

We are only certain of the presence of corpuscles in the blood, by contrast or color, as we see them; thus the red corpuscles which appear yellow, and the so-called "colorless" corpuscles which are of a much lighter shade, are readily recognizable; but of those corpuscular elements of the same refractive index and color of the plasmic fluid itself we have no knowledge whatever. The blood corpuscles themselves, in various territories of the skelital capillaries, are seen to halt and seem to maintain a firm hold on the capillary wall, to move on after varying intervals. May it not be, that in all these situations, a material similar to the spawn of fish, or species of mycelium—like buds that, in time, become impregnated and detached, though only coming into view, as they take on color and appear, first, as hematoblasts?

The blood to the human body is the same as the ocean and its tributaries are to the earth. The ocean is the centre to which all must return to be purified. Its water is salt. Let us compare it to the arterial blood. The atmosphere is soon charged with its evaporating fluid, periodically as rain is deposited on the earth, to again move towards the ocean, as fresh water. Now let us compare this to venous blood in the veins, and we have a striking analogy.

Now in the cycle which the blood makes in the body all the tissues are flushed by a fluid in rapid motion. It might seem that this motion might render reproduction of the corpuscles in the current impossible. But in the lymphatic glands and spleen the extreme tortuosity of the vessels form eddies and stases near the periphery, where movement is probably irregular.

Plausible and interesting as may have been the views of many distinguished investigators on the sources of the corpuscular supply of the blood from extrinsic sources, they do not demonstrate that the plasma itself is not the fons et origo of it all, as will be later noted.

THE PLASMIC CURRENTS.

It has been noted in the preceding chapters that the blood corpuscles do not and cannot penetrate the ledges of basic substance in which all epithelial elements are lodged; or, in other words, in the generally accepted sense, the epithelia are avascular. This statement, however, seems rather difficult to reconcile with well-established facts, for we know that many substances which enter the stomach are carried to certain organs, e. g., the kidneys, by the blood and thrown off by the renal secretion. But how do they penetrate the walls of the renal epithelia, when no blood-vessels pierce them? Evidently in no other manner than through the plasmic current.

What is the chemical composition of this fluid? Physiologists commonly give us only an approximate idea of its chemical composition, or morphological characters, for the simple reason that the moment it leaves the blood-vessel its decomposition commences, and its death begins. Denis, one of the latest writers on this topic, was able to separate the corpuscles from the blood, and preserve it in a fluid state by the addition of one-seventh part, in volume, of a concentrated solution of sulphite of soda to freshly-drawn blood. Then to the decanted plasma he added an excess of pulverized sodium chloride, when a soft, pulpy material was precipitated. This, he decided, was a proximate principle, which he designated "plasmine."

This substance is soluble in ten parts of water, which may now be once more divided by whipping with

broom corn into pure fibrine, or, as he called it, "concrete fibrin," and "liquid fibrin," or as it is lately called, "metalbumen." The liquid fibrin may be coagulated by the addition of sulphate of magnesia. But, what does all this prove in connection with the question of the actual composition of the living, moving fluid? Certainly nothing more than was known long ago on this point. Twenty years ago it was taught that fibrin was a definite, proximate principle. But now it is well known that, as fibrin, it does not pre-exist in the blood, and that coagulation is dependent on a ferment. Nevertheless, the older view strikes one as the more rational, for the evolution of this nitrogenized substance was spontaneous, and occurred in the moving current, as well as when withdrawn from the body. Plasma, metalbumen, or serum are the products of chemical reagents acting on the blood, and are in no sense normal elements, but rather artificial products, as much so as soap is the resultant of an alkali acting on a fat, and casein the product of a ferment acting on milk.

Of the definite chemical principles composing the plasma in the living blood within the vessel we know nothing. All that can be said of it is that it is the vitalized fluid in which the corpuscles of the blood float, and that in all the processes of nutrition and repair of the tissues it plays a dominant role.

Modern hemotologists and physiologists have given its study but little attention, and have rather bent their energies to the study of the corpuscular elements; their probable source, function and destination.

No effort has been made by me to further investigate the composition of the plasma, but rather to direct attention to its functions in the economy.

My own observations and reflections have led me to the conclusion that this fluid chiefly serves as a medium of transportation of all the nutrient elements of the circulation, as well as the residuum of tissue metabolism to the emunctories; the blood corpuscles being concerned chiefly in the elaboration and preparation of those finer changes which all elements must undergo before the glandular organs can assimilate them.

As we view the movements of the blood, within its transparent tubular conduits, we can distinguish nothing in motion except the corpuscles. These flit and shoot in every direction, but the plasma, as far as the eye can detect, is motionless.

This limitation of visual inspection is what prevents us from following the plasmic stream, which,though not foreused through tunnels, after it leaves the capillaries, must yet preserve an active interchange through the connective tissue meshes and the endless epithelial and endothelial elements, which are everywhere imbedded in the stroma of organs.

Of one thing, at least, we are certain, viz.: that the plasma is chiefly composed of water; that all the water taken into the body is promptly appropriated by it for irrigating and other purposes, and nearly as promptly carried to the secreting organs and thrown off.

In order, however, that the economy may utilize it to the best advantage, water must be ample in quantity, and pure in quality. The farmer well knows that next to a rich herbage, his choice milking cows must have an abundance of good water. And so it is with the human body and human blood; pure, fresh water are their most essential aliment.

All epithelial structures require a large quantity of water. To the sudoriparous glands in the integument, in very warm weather, enormous quantities of water are carried by the plasma and thrown off. During intense heat evaporation of moisture from the surface of the body is so great as to reduce the aqueous elements of the blood and tend to thicken it. Besides, its temperature is raised. In this condition copious draughts of water, both cold and hot, dilute the blood.

Water leaves the plasma, quite unchanged, with the exception of an admixture of chloride of sodium. Whether this, like hydrochloric acid in the stomach, is a product or secretion by the epithelia, or is abstracted

from the saline elements in the blood, is unknown.

The plasmic currents on the surface of the body, those which course through the broad expanse of integument, although they give off water freely, are quite powerless to take it up, or absorb it; as the skin is practically impervious to all aqueous elements, and but very few medicaments can enter the general circulation; the principal exception being mercurial ointment, which is composed of the pure metal and a fat.

But how this material, either in oil globules or as unchanged mercury, can pierce three layers of stratified epithelia and enter the capillaries, cannot be explained. It has been supposed that the saline secretion acts on the metal and forms a soluble chloride, but when mercury has been so applied on the skin of a dog lustrous particles of the metal have been found in the liver and kidneys. With the plasmic current of the peptic glands of the stomach, the mucous, and Lieberkuhn's of the pylorus and small intestine it is directly the contrary to what we witness in the skin; for the epilthelia, which line the intestinal canal, as far as the caput-coli at least, possess the dual function, in a large measure, of both discharging and resorbing fluids.

In conditions of acute thirst, when the stomach is empty, it is believed that water after being swallowed is at once taken up before the pylorus is reached.

The pulmonary organs are third in order as excretory conduits of aqueous elements of the blood.

With every expiration a jet of vapor is sent out through the trachea, impalpable in warm weather or a temperature above 40 Fahrenheit.

We are only conscious of its volume when freezing is reached and condensation is perceptible.

We are not able to determine what the precise limit of the lungs is, in absorbing moisture, although, it is quite obvious from observation, under various conditions, that it is considerable.

All are aware that a damp, moist atmosphere will diminish thirst, and lessen bronchial irritation. We know that the lungs exhale other elements than carbonic acid, that the breath is offensive after certain substances are eaten, and that in various deranged conditions of health it is very offensive. It is clearly evident, then, that the epithelia which stud the alveoli of the air vessels can thus abundantly discharge fluids and gases, and are the centres of active oxidation. Water must enter them from without, as well as through the plasmic currents, which, in these structures, are less marked than in the skin or intestine.

(To Be Continued.)

L'ONANISME CHEZ LA FEMME.

BY DR. POUILLET, FRANCE.

Translated from the sixth edition by Dr. F. E. Chandler.

CHAPTER I.

Definition, Synonyms, Origin, History.

The word onanism was introduced into France by Tissot, who took it from an English work, Onania, which was attributed to Dr. Beckers, of London. The expression onanism is the generalization of the proper name Onan, whose story is found in Genesis xxxviii.

"Dixit ergo Judas ad Onam, filium suum: Ingredere ad uxorem fratris tui et sociare illi, ut suscites semen fratri tuo.

"Ille sciens non nasci sibi filios, introiens ad uxorem fratris sui semen fundebat in terram, ne liberi fratris nomine nascerentur, et idcirco per-

cussit eum Deus eo quod rem detestabilem faceret."

The word "onanism" was improperly used by Tissot; for this passage from the Hebrew historian and legislator is far from proving beyond doubt than Onan masturbated; it even proves the contrary to those who take the pains to seek the sense and not the words of a phrase.

In order to comprehend the passage which has given rise to the erroneous interpretation of Onan's act, it seems proper to give an abstract of the usages and customs of the Jews instead of relying wholly upon one verse of the Bible, different translations of which may have sensibly altered the meanings of certain words.

Here are some articles from Deuteronomy, chapter xxv, which will explain what we desire to know:

Verse 5.—If brethren dwell together, and one of them die, and have no child, the wife of the dead shall not marry without unto a stranger; her husband's brother shall go in unto her, and take her to him to wife, and perform the duty of an husband's brother unto her.

Verse 6.—And it shall be, that the first-born which she beareth shall succeed in the name of his brother which is dead, that his name be not put out of Israel.

Verse 7.—And if the man like not to take his brother's wife, then let his brother's wife go up to the gate unto the elders, and say, "My husband's brother refuseth to raise up unto his brother a name in Israel; he will not perform the duty of my husband's brother."

Verse 8.—Then the elders of his city shall call him, and speak unto him; and if he stand to it, and say, "I like not to take her;"

Verse 9.—Then shall his brother's wife come unto him in the presence of the elders, and loose his shoe from off his foot, and spit in his face, and shall answer and say: "So shall it be done unto that man that will not build up his brother's house," etc.

With these data it is easy for us to reconstruct the episode which concerns Onan, as Lallemand has also done. Her, the first-born of Judas, and husband of Thamar, died without issue; his brother Onan was then forced to marry his sister-in-law to escape the scandal mentioned in the fifth book of Moses. That is why Judas advised him to marry Her's widow. Onan obeys his father. But, by his brother's death he has become the eldest of the family, and, as the law authorized him to have other wives, he could hope for a son legally his own, to perpetuate his own race. So, instead of accomplishing normally the conjugal relations he "frauded," as Dr. Bergeret felicitiously expresses it, or, if you wish, "ejaculabat extra vas" as the casuists put it.

This act, as may easily be seen, does not constitute masturbation, and it is only necessary to glance at the book entitled "Des fraudes dans l'accomplissement des fonctions generatrices" to learn that many married people—for what purpose is of no consequence to us—do identically the same thing as Onan. These people are given to onanism in the absolute, etymological sense of the term, but they are by no means addicted to what is commonly called masturbation.

Given these facts, we might be blamed for employing a misleading and vicious term for the title of our work. We hope that we shall be pardoned this defect when we explain that we have made use of this word as of a scarecrow, to keep away from our work the non-medical and ignorant public to whom this term is far less familiar than the word masturbation.

Al. Schwartz, of Strasburg, in his inaugural thesis, 1815, says: "Onanism is a deadly habit, followed by an unnatural evacuation of the spermatic fluid caused by handling or by an ardent imagination."

This definition is bad. It is neither precise, general nor exact. It cannot be applied to women who have no spermatic fluid unless one commit the heresy to regard as such the liquid secreted by the vulvo-vaginal glands.

Besides, an ardent imagination may possibly, in certain cases of absolute continence, of atony of the genital organs or of cerebral disease, provoke the venereal spasm; but

would we be justified in treating as masturbators a continent man or a woman afflicted with nymphomania.

This definition, with all its defects, may be pardoned to an author of 1815, but to see an author of our day reproduce this ancient definition, word for word (and without giving Dr. Schwartz credit), is rather remarkable.

In the twelfth edition of Nysten, by MM. Littre & Robin, we find "Masturbation, manustupration (manu hand and stuprare to soil); excitation of the genital organs with the hand, called also onanism. It is the more dangerous because of the numerous opportunities to practice it."

This second definition is better than the first, but still so incomplete that I propose the following: "Onanism in women is an act against nature done with a living organ (hand, tongue, etc.), with some sort of instrument (cologne bottle, dildoes, etc., etc.), or with special movements, partial or general, with the intention of provoking the venereal spasm. It may either be solitary or performed in common."

Besides the words onanism and masturbation, the following are sometimes employed: "Manusturbation, cheiromania or chiromania, manustupration, Onan's crime, mastupration, solitary libertinage, manual defilement, unnatural passion, solitary passion, manual vice, solitary maneuver, genital vice, and many others. (I).

Starting from the fact that not only in the human race is this vice met with, but that dogs, turkeys, etc., and especially monkeys, give themselves up to it furiously, I do not intend to discuss whether or no masturbation is natural, but leave that to others more clever and learned than myself. I will only say that onanism seems to have existed in both sexes from the earliest times.

I will not, as many authors have done, insist upon the story of Onan; I have shown above that their interpretation of the passage was erroneous, and besides I do not intend to touch upon this vice in the male; neither shall I descant on this verse of Ezekiel "et fecisti tibi imagines masculinas et fornicata es in eis." Chapter xvi, 17.

If, when separated from its context the above quoted passage seems to leave no doubt as to the maneuvers of the Jewish women, it is by no means so clear when taken as a whole.

"Verse 16.—And of thy garments thou didst take and deckedest thy high places with divers colors, and played the harlot thereupon, the like things shall not come, neither shall it be so.

"Verse 17.—Thou hast also taken thy fair jewels of my gold and of my silver which I had given thee, and madest to thyself images of men, and didst commit whoredom with them.

"Verse 18.—And tookest thy broidered garments, and coveredest them, and thou hast set mine oil and mine incense before them.

"Verse 19.—My meat also which I gave thee, fine flour, and oil, and honey, wherewith I fed thee, thou hast even set it before them for a sweet savor, and thus it was saith the Lord God."

Do not let us forget that Ezekiel was addressing not a woman, but a whole people, Jerusalem, of which he synthetises the abominations, and by images of men he means the statues of strange gods in human form, idols to which the Jews offered sacrifice in spite of the express and terrible prohibition in Deuteronomy.

"Cursed be the man who maketh any graven or molten image, an abomination unto the Lord, the work of the hands of the craftsman, and putteth it in a secret place."—Chapter xxvii, v. 15.

Thus by confining ourselves to the words and not the spirit of the text we wrongly get the idea that by images of men is meant instruments of masturbation for the use of women; and Dr. Jeannel (I) has erroneously underscored the words of the Prophet Ezekiel by the following note: "Images of men are publicly sold at Tien-Tsin. They are made in Canton, of a gummo-resinous mass which has a certain elasticity. They are

I. Some authors have used the term nymphomania as synonymous with masturbation, thus creating a regrettable confusion without any plausible reason.

I. De la prostitution dans les grandes villes au xiv siecle.—J. B. Balliere, Paris, 1868, p. 75-76.

rose or flesh-colored. Some albums offered freely for sale represent naked women using these instruments, which are attached to their heels. They are also made in porcelain for objects of art and adornment." The existence of phallus and the use made of them by the inhabitants of the Celestial Empire are incontestable, and Captain Wattremey has confirmed these facts while adding that they were not openly exposed for sale. (II).

Nowhere in the Bible is the vice of masturbation clearly described, and if we have stated that this vice has probably existed in all ages it is because we know that it is often the consequences of causes which are essentially organic, inherent in human nature, causes which must have acted, formerly as to-day, identically and produced the same results.

Among the Greeks, Sappho the erotic, and the young Lesbian girls, had the reputation of despising men and of sacrificing to Venus alone; they were surnamed "Tribades." Tribadism (tribein, to rub) was then as now mutual masturbation, unless we believe in a strange endemic of clitorism among the women of Lesbos (III).

In Rome, under the emperors, manualization was much enjoyed by the "sometimes tired but never satiated matrons," as Juvenal has it. At this epoch women used chiefly the priapus or phallus—(phallos, penis)—either of wood or of precious metals.

"Antique phallus found at Herculaneum and Pompeii are numerous in the Naples museum. The most of them are in bronze or gold, etc.

(Musee de Naples, edit Ledoux, p. 29).

Tribadism was also extremely common at this period if the satirists are to be believed.

It will be sufficient to quote the following verses from Martial and Juvenal, to show that the Roman women were fully as licentious as those of Lesbos:

Lenonum ancillas posita Laufella corona
Provocat, et tollit pendentis praemia coxae
Ipsa Medullinae frictum crissantis adorat
* * * * * *
Nec ibi per ludum simulatur, omnia fient
Ad verum * * *
(Juvenal Satire vi.)

In Philoenin
tribas Philoenis.
Et tentiginie saevior mariti
Undenas vorat in die puellas
* * * * * *
* * * Quum libidinatur
Non fellat putat hoe parum virile.
Sed plane medias vorat puellas.
Di mentem tibi dent tuam, Philoeni,
Cunnum lingere quae putas virile.
(Martial, lib. vii, 67.)

There is nothing so very remarkable in this when we think what powerful genital excitants many of the religious festivals of these times were; some of them being simply luxurious orgies and incentives to debauchery.

Finally, it must be acknowledged the matrons preferred solitary pleasures and tribadism to sexual connection, because they found there a means of calming their erotic passion without having to fear pregnancy and its sequelae.

This is so true that the Latin women, when they could, gave themselves to eunuchs who procured them physical enjoyment without imperiling their beauty, that child-bearing would have ruined.

Here is what Juvenal has to say on the subject:

Sunt quas eunuchi imbelles, ac mollia semper,
Oscula delectent, et desperatio barbae.

II. Five years ago every Cheap John of the Parisian boulevard had them for sale.

(III.) At the time when Parent-Duchatelet was compiling his great work on prostitution, he made an investigation of the development of the clitoris and found that in the whole city of Paris there were but three prostitutes where it was of unusual dimensions.

The largest of these was three inches long and equalled in size the penis of a boy from 12 o 14 years, which it exactly resembled.

It is a matter of general belief that among those women who seek each other's society for tribadism, those who are equipped with a voluminous clitoris are the most inciting and the most sought after. It is by no means so. The three prostitutes of whom I have just spoken were of the utmost indifference towards their own sex and had no great liking for men, so that their peculiar configuration, far from predisposing to lasciviousness would, on the contrary, seem to have tended to enfeeble it. * * It has often been observed, that those girls who do seek each other's society and in whom this perverse instinct has the firmest hold, are noticeable for their grace, their sweetness and their youth. in short for all those qualities which render them attractive to men.
Giraudeau, Traite des Maladies Syphilitiques, p. 550-551.

Et quod abortio non est opus, Illa voluptas
Summa tatum, quod jam calida matura juventa
Inguina traduntur medicis, jam pectine nigro:
Ergo expectatos, ac Jussos crescere primum
Testiculos postquam coeperunt esse bilibres
Tonsoris damno tautum rapit Heliodorus
(Juvenal, vi, 36f.)

In the Middle Ages debauchery and that promiscuousness of the sexes dependent upon poverty were at their height, and possibly a part of the causes of those epidemics of nervous diseases: epilepsy, hysteria, chorea, catalepsy, ecstacy, uterine furor, etc., then called crimes of sorcery, which attacked many at a time and which the canonical judges cured so merrily by burning the victims at the stake, could have been referred to manualization.

In our day, onanism has passed, so to speak, into the customs; it may even be more widespread than formerly, but it is less visible. It is concealed, and with justice, as a shameful vice.

We have not to occupy ourselves with the men; as to the women, if there are many who give up manualization after marriage there are many who keep up this deadly habit during conjugal life and widowhood, or only take it up at this period; we shall endeavor further on to give the reason for this state of things.

Those who will persistently deny this have only to examine the literature of the times. Two novels, Mademoiselle de Maupin, by Th. Gautier, and Mademoiselle Giraud, Ma Femme, by A. Belot, have tribadism or mutual masturbation as their point of departure, and of the shorter stories dealing with this subject, their name is legion. Now novels are by no means, as is too often thought, mere creatures of the imagination; they are also the reflection of the times which see their birth. Novelists rarely invent passions or vices; they only present them in an agreeable and attractive form.

If that is not enough for the incredulous, let them frequent, as a last resort, the stages of the minor theatres or, still better, of the concert gardens, and what they will see and hear there will not leave any doubt as to the frequency of masturbation, both solitary and in common.

CHAPTER II.

Varieties.

As I have already hinted, there are several forms of masturbation in women. I shall review them rapidly while classifying them.

We will first make the following grand divisions according to the anatomical configuration of the genital organs: A, vaginal masturbation; B, clitoridian masturbation; C, urethral masturbation.

A.—Vaginal Masturbation.

This form is rarely extraneous or in common, but is generally personal and solitary, and less frequent than clitoridian masturbation. It consists in maneuvers made with candles, ends of broom handles, phallus, different vegetables, cologne bottles, needle cases, etc.

More than one surgeon in his practice has met with young women who, while masturbating with some one of the objects named, had the bad luck to see the instrument escape them and penetrate into the vagina so that they were unable, to their great shame, to withdraw it themselves.

Medical literature contains many observations of this kind, as well as of the loss of different foreign bodies in the urinary passages.

Although unusual in children, vaginal masturbation is especially common both in young girls and in adults, either widowed or single. Before arriving at this form of genital excitement the woman is generally blasee on the other methods of procedure.

It is an erotic refinement which finds its cause in a more complete knowledge of genital pleasures, since it is a rude imitation of coitus.

A. Schwartz (loc. cit.) reports the following case: "A woman, aged from 25 to 26 years, of vigorous temperament, defiled herself while her husband was on duty. The instrument she was using (sausage) broke, the efforts she made to remove it were in vain.

The heat and moisture of the vagina soon dissolved the ingredients of which it was composed. Engorgement of the vagina and of the labia majora, uterine pains, ardor urinae and tenesmus soon came on. Anxiety, fear and shame only increased the sufferings of the patient to the point that she decided to send for Mme. H., midwife. This person first wished to consult me, but she took a knitting needle, bent one of its extremities into a hook and succeeded in extracting it piecemeal. Some injections and an antiphlogistic regimen reduced the inflammation and did away with all malaise. The young woman promised not to recommence."

While interne in the hospital of Lille in 1869, I saw a woman of some 40 years of age. She was scarcely able to speak, and her face, besides suffering, showed an almost complete imbecility. I had her placed in one of my wards, where she died a few days later.

She had admitted, but with many circumlocutions, that she had long been addicted to vaginal masturbation. At the autopsy I found a perforation of the vagina, the direct cause of the peritonitis that had carried her off—a perforation produced, doubtless, by the instrument which this woman had used to gratify her ignoble passion.

A woman consulted Dupuytren for an ailment in the vulvo-uterine canal. Touch showed easily that there was a foreign body here whose nature could not at first be determined, but the patient persisted in not giving any information on the subject.

Examination showed that the object, whatever it was, had a large opening and a deep cavity. The swollen vaginal walls by covering its edges prevented penetration to the object and furnished considerable resistance to seizing and disengaging it from the vaginal cavity. Finally, a successful extraction was made, and the mysterious object turned out to be—a pomade pot!

These are not isolated facts. A woman from the neighborhood of Vichy has told me that in her country she had often heard of and sometimes seen the peasant women use radishes, carrots or parsnips to calm their desires. O moeurs pures des champs!

(To Be Continued.)

Editorial

THE TIMES AND REGISTER is published Bi-weekly—Twenty-six issues a year.

All communications, reviews, etc., intended for the editor should be addressed to 367 ADAMS STREET' DORCHESTER, BOSTON, MASS.

THE TIMES AND REGISTER is published by The Medical Publishing Co., 718 Betz Building, Philadelphia, Pa., to whom all remittances should be made by bank check, or postal, or express money order.

Subscription price is $2.00 a year in advance. Foreign countries, $2.50. Single copies, 10 cents.

Advertising Rates may be had on application.

Reprints of Original Articles are not furnished except on payment of cost price by the author.

Original articles of practical utility and length are invited from the profession. Accepted manuscripts will be paid for by a year's subscription to this journal and fifty extra copies of the issue in which such appears.

SALUTATORY.

We wish all our readers a happy and prosperous New Year.

This is not saying that we wish our lay-friends misery and suffering. Far from it. We have not confined our first paragraph to physicians only.

With this issue we begin a new era of work on "The Times and Register," and we trust its new dress and general aspect will commend themselves greatly above our former issues. We strive to work along the lines of advancement, and if we have cut off half our issues for the coming year, they will be more than replaced by the character and increased pages of the issues we intend to give our subscribers.

Our pages have been increased from twenty of reading matter to forty. The whole journal from forty pages to sixty-eight. We have added a colored cover to improve the outside appearance.

The general arrangement of the reading matter has been altered so as to more easily sub-divide our work. We are well provided with accurate translators for our foreign exchanges in French, German, Russian and Italian, and a new department has been added for the benefit of the physician's wife.

Serial articles will be found, which are of the utmost importance to every physician who desires to keep up with the advancement of medical knowledge. Two such articles, Dr. Manley's, on "The Blood and Circulation," which is continued from last number, and which will soon pass from the physiological to the practical part; and Dr. Pouillet's, which is translated for us by Dr. Chandler, on "Onanism in Women," treat of subjects of vital importance to the general practitioner.

The department of Electro-Therapeutics under the efficient care of Dr. S. H. Monell, of Brooklyn, begins its third year with this journal. This department has been exceedingly interesting in the past, and its editor assures our readers that no effort will be spared on his part to make it even more so this year. To this department are invited original articles from any who have practical knowledge of the subject of medical electricity, whether they be considered specialists or not. The department is maintained for the purpose of education along this line, and, although our support from instrument manufacturers has been poor and discouraging, with one exception, from a Baltimore firm, yet

the work has gone on just the same, and has been most practical to the general practitioner. We look for better support this year from the profession, and trust some of our readers will continue their interesting articles.

It will be noticed that the subscription price has been advanced to two dollars a year. This was a necessity from the fact that the cost of output of this journal is increased this year over former years. It is still under the old price of three dollars, which was reduced principally on account of hard times in 1894. We feel confident that no subscriber will have cause to complain this year on account of the slight raise in price, for he will be unable to purchase the material we propose to issue for five times the amount of the subscription price were he to find it purchasable in book form.

We, therefore, extend to our readers the compliments of the season, and trust that they will find in this issue of our journal for 1896 sufficient to warrant the continuance of their own subscriptions and a cordial recommendation of "The Times and Register" to others.

THE TREATMENT OF HEMOPTYSIS.

Practically there is no condition which calls for emergency treatment where the demands are so urgent upon the resources of a physician as in a case of profuse pulmonary hemorrhage. The alarm of the patient and friends is extreme, and the shock is always out of proportion to the loss of blood, unless the hemorrhage be sufficient to prove fatal.

With some exceptions hemoptysis is to be regarded as the forerunner of phthisis, and the laity have so been taught to look upon this condition.

Bleeding from the lungs differs in many respects from hemorrhages of other organs, the cause of which is apparent when one studies the minute anatomy of the parts. It is here that the objective symptoms differ from those observed in ordinary hemorrhage, the bright blood is venous and the dark arterial.

It must be remembered that there is a general classification of hemoptysis as belonging to one of five varieties: simple, congestive, ulcerative, cavernous and extra-pulmonary, and that it differs very much as to what course of treatment to apply in which class a given case of hemoptysis occurs.

The simple variety, or ideopathic, as it is sometimes called, is rarely met with, and does not generally indicate important lung affection. The second, or congestive, form, we most often meet with in the early stage of phthisis, and the treatment of this form is most important.

Probably there are not nine physicians in every ten who would consider he was justified, when called to a case of hemoptysis, in giving anything else than ergot, and, indeed, this drug would seem to be indicated were the hemorrhage one belonging to the third or fourth varieties. The variety is not always apparent or of practical use when one is in a hurry to control a hemorrhage, but we must also remember that it takes some twenty to thirty minutes for ergot to act, and that an ice pack is more often a quicker and certain remedy in sudden hemoptysis.

These congestive hemorrhages generally come from the venous system, and our important point to remember is that we should strive to free the veins from engorgement. This is generally best met with by digitalis. We recognize in this drug an agent which, while it increases arterial pressure, which would seem to contra-indicate it in arterial hemorrhage, will place more power of action on the ventricles of the heart and keep the arteries supplied with a surplus of blood at the expense of the veins. This is just what is most desirable in congestive hemorrhages. In arterial hemorrhages, as are apt to occur in uterine and other organ-

ic bleedings, we need to contract the arterial system and place the most of the work on the venous system.

Quiet is always essential, and to procure this we may have to resort to opiates. The condition of the blood also requires attention, and for a few days we will require hemostatics, such as turpentine, gallic acid, cupric sulphate. Ipecacuanha is also of service in pulmonary hemorrhage when given in large doses.

STILL AT IT.

Professional desire for notoriety never ceases. The American Medical Review gives an account of an interview with Dr. Edson, of New York, in which the latter affirms that a new cure for consumption has been discovered, but the matter must still be guarded as a secret. Indeed, it is of such detail that only few physicians will be able to apply it without special study. Of course, it is along the line of hypodermic medication, is said to be composed entirely of chemicals, and a sure cure for yellow fever and malaria as well. One case cited cures malaria in one hour; another tubercular hip-joint disease in three weeks.

We are at a loss to know when these so-called wonders will ever cease, and reputable men, who go meandering off for the sake of short-lived notoriety, be restored to true professionalism. No doubt, a few pennies might be realized by following such a course from the ever-vulnerable public, but the large part of the profession have become so used to this sort of preliminary advertising of a new idea that they will not be materially affected.

When medical men carry on investigations of an experimental character we believe that they would serve their brethren, the public and suffering humanity a much more useful purpose if they would keep still about their discoveries until they had perfected them to an absolute certainty, and then evolve their knowledge in its entirety for professional benefit.

When we arrive at the method of cure of tuberculous hip-joint disease in patients who "could not walk a block" so that in three weeks they have recovered, and can cure malaria in one hour's time, we shall perform feats little short of miraculous.

HYSTERECTOMY, ABDOMINAL AND VAGINAL.

The operation known as hysterectomy is of comparatively modern date.

Diseases of the pelvic organs of reproduction in the female had, until recent times, been treated by conservative measures, internal medication and topical applications. The conservative principle was preservation, and not destruction. Singular as it may seem on superficial examination, in the days before radical surgery came forward and claimed the domain as its own, mortality among women from pelvic peritonitis or general peritonitis was as low or lower than to-day, the claims of operators to the contrary notwithstanding.

Pus accumulations in the broad ligament, the ovary or tube, in some manner, in those times either became encysted, inert and were resorbed, or the pus made its way out through the vagina, when it was said the patient had the "whites or ulceration of the womb."

Then came abdominal surgery, with all the safeguards of modern science, and perfection of technique, when operators have become emboldened not only to eradicate the lesion, but the affected organ as well.

The furor operatique swept over the world; encysted ovaries must be removed, and whoever saw one, after the rupture of a Graeffian follicle, that was not the seat of cysts in its periphery or parenchyma?

Applying the same principle to the uterus, it has now come to pass that this important organ is ruthlessly swept away, not only for fibroid growths or cancer, but for prolapse, endometritis, as a means of reaching and evacuating pelvic abscess and for purposes of "drainage."

The moral and the medico-legal aspect of this procedure seems to have been lost sight of. The only question has been how the uterus could be eviscerated by the shortest route and with the greatest ease.

Hence we have the "abdominal hysterectomist and the vaginal hysterectomist."

The abdominal line of attack was the one generally accepted until Peau, at the Berlin Congress, reported his experience with delivery by the vaginal route, and cited his large experience and success with vaginal hysterectomy.

Here in America, where the tendency is to swallow anything smacking of originality and labeled European, the new operation soon had numerous adherents.

At the general meeting of the Academy of Medicine, of New York, held on the 19th of December, 1895, the respective merits of the abdominal and vaginal hysterectomies were considered, the opening essay being by Dr. W. M. Polk, who was supported by Dr. Cushing, of Boston; Dr. Lusk and others.

The opposite side, which defended the abdominal operation, was led by Drs. Baldy and Noble, of Philadelphia, who made a scathing attack on vaginal hysterectomy, though in the course of their remarks they seemed to labor under the impression that vaginal hysterectomy was the operation of choice among New York surgeons, which is far from the fact. In all truth it must be said that neither of these operations reflects great credit on surgery. Surgery consists in something more than the performance of mutilating operations, however artistically these may be performed. Of the uterus it may be said, as of a limb, better a thousand times save one than sacrifice a score, however successfully. Whatever the abdominal route for hysterectomy may have to commend it, in rare and exceptional circumstances, the removal of the uterus through the vagina is a most unsurgical and barbarous piece of mutilation. But a woman recovers from the operation in a few days or a week, it is said. In all but occasional instances she has been physically wrecked.

The vaginal mucous membrane is widely torn away from the bladder and rectum; those horrible, incurable rectal and vesical fistulae generally follow. The broad ligament, the uterus and accessory structures, which constitute a barrier against vaginal hernia, are all cleared away.

To the uninitiated, the rapid clearage of the uterus through the vagina may seem like the very climax of surgical ingenuity; but let him watch the course of the case, the distressing convalescence, the fistulae, or large open sores, on the mucous membrane, and his enthusiasm will be replaced by an implacable detestation of the procedure. Let us hope, in the name of humanity, this operation will soon be blotted from the category of legitimate surgical procedures.

Electro-Therapeutics

DR. S. H. MONELL, Editor.

SOME OF THE SIMPLER USES OF ELECTRICITY IN THE TREATMENT OF THE PELVIC VISCERA.

BY S. H. MONELL, M. D.

With this issue we commence the third year of our regular contribution to this electro-therapeutic department. When experimental philosophy first gave practical electrical currents to the uses of the world they passed from the hands of physicists and philosophers into the medical profession, which, in turn, for the most part, passed on the gift to a shrewd and sagacious set of men called quacks, who knew a good thing when they saw it. They got great glory and money out of what scientific medicine spurned. But at all times for a century past there have been isolated men in the profession applying their genius to the creation of a reputable electro-therapy.

After Duchenne labored the task was easier. When Apostoli appeared the beginning of the end was in sight. To-day the therapeutics of medical electricity is firmly established, and not more empirically than the therapeutics of the majority of drugs. If pathology was an exact science electro-therapy would be much more exact than it has yet become, but another ten years of progress may do much in this respect.

At one time neurology almost monopolized expert skill in the uses of medical currents. Later the gynecologist took hold of the crude, cheap haphazard apparatus which supplied this agent to medicine and under the guidance of a brilliant and methodical leader developed the manufacturer into a skilled workman, producing the high grade apparatus we now possess; and with these improved means and the surgeon's aid extended the application of electricity into half the domain of practice.

Finally, the general practitioner is recognizing the utility of acquiring sufficient knowledge of technique to keep in his own hands a great number of cases which otherwise would slip away from him— cases especially which yearly fatten the pockets of the venders of "patent medicines."

Four of our recent issues have been devoted to an important phase of electro-therapeutics, involving both refinement of apparatus and advanced knowledge of electrical methods to bring to pass the excellent results described. These uses of faradic sedation in acute local inflammatory processes have served to illustrate in a very interesting manner the broadening influence of improved appliances and the general application of the teachings of electro-physics. It is something of a jump from the old magneto-electric contrivance to the high tension induction coil currents of to-day, and from the neurologists nerve and muscle effects to the treatment of parotitis, appendicitis, carbuncle and acute inflammations of the pelvic viscera, reported in our late numbers. It is fitting that our space should be devoted

in this beginning of a new year of medical progress to the branch of work in which that progress has been most representatively promoted so far as relates to therapeutical achievements of electricity, viz.: electro-gynecology.

The pelvic affections which most concern the average physician fortunately are the very ones in which electricity has proved most reliable and beneficial.

Omitting surgical exigencies it may be fairly stated that the following conditions are more successfully treated by electro-medical methods than by any of the customary routine or topical forms of treatment which do not include electricity. In fact this agent is nearly indispensable to securing the best results in disorders of menstruation, hemorrhage, neuralgias, subinvolution, undeveloped uterus, stenosis, sterility, displacements, prolapsus, metritis, endometritis, peri-uterine inflammations, exudations and adhesions, leucorrhea, muscular debility of uterine supports; and to these may be added uterine fibroids. Intelligent discrimination in cases of the latter will tend to obviate disappointment and prevent blame from falling upon electricity for failure to extend its influence into the realm of miracle. In their local applications medical electric currents are defeated by certain conditions—suppuration for example—and by malignant degenerations as well as by cystic tumors, etc. Electricity can accomplish enough good, however, in the female pelvis to render it unnecessary to try to make it cure everything. Classifying uterine fibroids into sub-mucous, sub-peritoneal and interstitial, it will dispel confusion in the reader's mind to state that in the interstitial class alone is Apostoli's method indicated and successful. In these cases it cures all the bad symptoms—hemorrhage and pain—arrests the growth, holds it in check and often reduces the size of the tumor, but not always.

Its great work lies in nullifying the evils of pressure and the growth of the neoplasm, and doing it safely.

Surgery removes the tumor, but interstitial fibroids are least amenable to removal, and the symptoms and neurotic disturbances which sometimes remain after operation are very disappointing. When it is a question of choice between surgery and electricity, it is the consensus of opinion to try electricity first; for it in no ways interferes with any ultimate procedure. I shall refer in a moment to cases from my own records, but the following, reported by Dr. T. G. Garry to the Obstetrical and Gynecological Society at Leeds, England, are so interesting as to deserve reprint:

Mrs. J., age 26, married five years; sterile; backache and pelvic pain; aggravated by walking or standing; reflex symptoms; profuse leucorrhea of a greenish color and offensive odor, dyspareunia, uterus enlarged, prolapsed and very tender to touch, great tenderness in region of broad ligaments; left ovary enlarged and painful.

Diagnosis: Metritis, endometritis, salpingitis and ovaritis.

With a history of much treatment and little benefit Dr. Garry pursued ordinary methods for four months without result, when a choice between laparotomy and electricity became an ultimatum. The patient preferred electricity. The galvanic current was employed May 17, 1890, applied 50 milliamperes positive, intra-uterine current for four minutes. There was a great deal of reddish discharge afterwards, which continued during the following day. May 23 gave 80 mil., four minutes, which was too strong a dose and which was reduced to 45 mil. on the next application, five days later. Treatment was continued with intervals of rest until the middle of February, a total of 35 intra-uterine applications; 22 positive and 13 negative.

Results: Leucorrhea had ceased. Uterus freely movable without the slightest pain. Peri-uterine tenderness had disappeared, and left ovary could not be felt by an ordinary examination. Two years later she was delivered of a healthy child, and at date of report was pregnant again.

The superiority of conservative electrical treatment (when it is successful in such cases) is in no way

more plainly pointed out than by considering the possibilities of motherhood after the thorough going laparotomist had got through with Mrs. J. An artificial menopause in early life is not desirable.

Miss P., age 25. Constant backache; pain and dragging in pelvis, especially in left side, aggravated by slightest exertion; dysmenorrhea, leucorrhea and menorrhagia. Uterus enlarged, anteflexed and congested; fullness and tenderness in the region of the left broad ligament.

Diagnosis: Uterine and ovarian congestion; probably salpingitis (left) anteflexion, stenosis, hypertrophy of uterus. Previous dilatation had afforded no relief; dysmenorrhea had been getting worse for a year, despite local treatment, and removal of the ovaries was proposed.

Again the patient preferred electricity. Treatment with the constant current was begun on July 2, 1890. Vaginal, 30 mil. positive, five minutes, to relieve the pelvic congestion. Repeated every second day till July 10, when it became possible to pass intra-uterine electrode. The uterine cavity was then found to be over four inches in depth. July 17, menses, lasting five days; pain slight.

July 27 resumed, with 55 mil. positive, application five minutes. August 5 and 8 gave 20 mil. August 15, 50 mil.; five minutes.

Menstruated August 26, flow much less and comparatively painless.

Treatment was continued until October 25. Result: Dysmenorrhea, menorrhagia and pelvic pain permanently relieved; patient continuing well after the lapse of three years.

Mrs. W., aged 25. Sterile; constant backache and pelvic pain; painful evacuations, menorrhagia and leucorrhea.

Diagnosis: Endometritis, retroversion, congestion of left ovary.

Treatment: June 24, 1890, 40 milliamperes, intra-uterine, positive, five minutes. June 30, 50 mil., and July 5, 60 mil. were given, with lessening of discharge. July 9, complained of pain and bearing down feeling. Left ovary enlarged and tender. Administered 60 mil. positive, five minutes, which was followed by a sanguineous discharge lasting for twenty-four hours.

July 12, reported felt much better; gave 70 mil., seven minutes. Treatment continued till 29th, when she had gone nearly a fortnight beyond her period. Gave 50 mil. negative, five minutes, and next period was practically normal. Treatment was kept up till October 7, when she was entirely free from discharge and pain, and the uterus was normally situated.

Miss J., age 21. Amenorrhea; had never menstruated. The treatment employed was constant current percutaneously. After 12 applications menses appeared and thereafter continued regularly. In cases of primary amenorrhea it may be stated in passing that the presence or absence of any subjective sensations is a guide to estimating the probable value of electric stimulation. If entirely absent, from sexual non-development the current cannot regulate a function which does not exist—but in irregularities, suppression from neurotic causes, anemia, cold, etc., electricity in one form or another has, since the long list of cases of Golding Bird, before 1840, down to the present time, been the one agent upon the use of which the results could be predicted with well-nigh mathematical certainty. The careful physician will, of course, exclude pregnancy and will in anemic states attend to the general condition, but when properly indicated and rightly applied electricity is potent, both to control bleeding states of the uterus and to restore the diverted menstrual function.

Mrs. R., widow, age 32, three children and one miscarriage. Mensturation absent for over a year, but has each month a sanguineous discharge through the nostrils; the face being also swollen and tender to touch, with a great deal of watery discharge from the eyes.

November 4 administered 40 mil. negative galvanism, intra-uterine, five minutes. Gradually increased this as tolerance permitted, till at the ninth seance 70 milliamperes was reached. Menstruation reappeared and continued regularly.

Mrs. M., age 27. Sterile; before marriage menstruation was regular and painless. Since then has suffered severely from dysmenorrhea. During the first day and before flow is established has several faiting spells. Leucorrhea, resembling white of egg. Diagnosis: Anteflexion, with enlarged fundus; stenosis; endocervicitis; pin-hole os; uterine cavity 3 1-4 inches. Treatment was begun August 28, with 20 mil. positive gal. to cervical canal, four minutes. September 4 and 8, 20 and 25 milliamperes, positive, five minutes. September 12, 40 mil. neg. intra-uterine, five minutes. September 17, flow appeared.

Had a good deal of pain; fainted once. Continued treatment till October 16, when next period occurred. It was quite painless, without fainting symptom. In the two months she had eleven treatments and uterus is still anteverted, but otherwise she has been permanently relieved.

The dilatation of pin-hole os and of stenosis of the uterine cervix by the electrolytic method is one of the most satisfactory things in local treatment. Simple, quickly performed, absolutely painless and without risk, it is infinitely preferable to instrumental divulsion, both in the operation and result.

Mrs. C., married; two children; has pelvic pain, menorrhagia; flow usually lasting ten days; latterly she has been unwell every fourteen days; profuse leucorrhea; uterus retroverted, enlarged and low in the pelvis; fundus tender to touch; cavity 4 1-4 inches.

Diagnosis: Retroversion and hypertrophy of uterus with chronic metritis.

October 16 gave 45 mil. positive gal., five minutes. October 20 and 23, 55 mil.

October 24, flow commenced today and continued profusely for ten days, the current strength having been too small to control it. November 13, 17, 24 and 27 positive 60, positive 70, positive 75 and positive 70 milliamperes respectively, were given for five minutes. December 5 flow appeared, lasting five days only, although very profuse. Four treatments of 78 mil. each were given in December, and at irregular intervals during January, February and March. Periods continued regular, but profuse.

Recognizing that dosage hitherto had been insufficient to accomplish the result, 120 mil. was given for six minutes on April 1. April 9 flow began, lasting five days, and normal in every respect.

April 19, 120 mil.; April 26, 170 mil., and April 28, 190 mil., were given with final treatment of 100 mil. on May 5. May 9 menstruation was normal; the patient remained well, and at this time is pregnant and expects to be confined in about six weeks.

Mrs. A., age 43. Has suffered for several years from menorrhagia; flow lasting usually eight days. Is usually kept in bed for the first three days; profuse leucorrhea; constant pain in left ovarian region; worse after her period; os patulous and cervix extremely congested. The treatment of this soft, bleeding uterus was begun November 19 with 30 milliamperes of positive galvanism for five minutes.

November 22 and 25 dose was increased to 40 and 50, which was still too little, for next period was more profuse than usual.Three applications of 60 mil. were given in December with small improvement, and treatment was suspended until March, when four applications were given, raising the dose from 80 to 115 mil. This proved adequate, the next period was normal, and the gain has been permanent.

Miss H., age 26. Has suffered for several years from dysmenorrhea. On examination nothing abnormal was detected beyond a hyperesthetic condition of the endometrium and spasmodic contraction at internal os. Six intra-uterine positive applications of the constant current completely relieved this case.

Mrs. B., age 38; one child; menorhagia; flow usually lasting three weeks and accompanied by great pain; uterine cavity measures eight inches.

Diagnosis: Fibroid tumor of uterus reaching above umbilicus.

Treatment began December 11 with positive galvanic application of 35 mil. four minutes. December 15 gave 70 mil. Had sanguinary discharge lasting a day. December 18 period very profuse and painful. January 8 and 14, gave 60 and 68 mil. On January 20 her period was much less profuse. Treatment was continued during February, March, April and May, and renewed again in October and November, the largest dose being 170 milliamperes, and applications 24.

Result: Since March 16 periods have been normal in every respect, averaging four days in duration and free from pain. There is a decided diminution in size of growth, which was growing rapidly before electrical treatment was commenced.

Mrs. W., age 39; two children, four miscarriages; duration of illness two years; menorrhagia; flow lasting usually three weeks, and accompanied by great pain, at times of a spasmodic nature; reflex symptoms; uterus over four inches deep.

Diagnosis: Interstitial fibroid of the uterus. Treatment began February 18. Thirteen applications were made by May 2, when her period was normal for the first time in two years. Continued treatment during May and June.

Result: She has been permanently relieved and enjoys good health.

Mrs. L., age 24; married six years; sterile; uterus acutely anteflexed; a large intra-mural fibroid projecting through the anterior wall. The posterior cul-de-sac is occupied by a hard painful swelling about the size of a hen's egg, and probably inflammatory exudate; cavity of uterus, 4 1-2 inches; menorrhagia and dysmenorrhea; flow lasting 12 days, with severe pain most of the period. Distinguished gynecologists (non-electrical) had suggested operation, after failure of medical procedures. The patient shrunk from the prospect and welcomed the hope of benefit from electricity.

When first seen she was completely blanched by the hemorrhages of thirteen months. She was unable to walk without assistance, and it was with great reluctance that the case was undertaken.

May 18.—Tentative treatment was begun with 30 mil. intra-uterine, the electrode being passed with difficulty. She was unable to get home. Following two more treatments she had a profuse and painful period. Resuming with 70 mil., her period on June 29 lasted but four days. No clots and but little pain. During July 80 mil. was given per seance. July 27 period lasted but two days, painless. August 7, uterus in good position, but slightly anteverted, and only 3 and one-half inches in depth. 100 mil. dose was reached by August 21, when there was a marked improvement in every way. The enlarged fundus was diminished, the lump in the cul-de-sac was no larger than a marble. With occasional further treatment she improved for two years, when she became pregnant, and after a normal labor, died during the puerperum, from some cause not known to the writer.

Pain and hemorrhage are the two great symptoms which bring these uterine patients to the physician. Happily, in controlling them, even when applied empirically, before a complete diagnosis can be made, the polar effects of the current employed are each—positive and negative—most harmoniously related to the pathological indications for treatment. In fact, in expert hands, safety is assured, and the chemical action of the pole which controls the dominating symptom is, in most cases, found also to be the pole adapted to the treatment of the cause.

I will cite but one more case which, however, is remarkable in several ways: January 17, 1894, Mrs. ——, age 26, married six years; no children; menstruated at 13. Regular until two months ago; then noticed a continuous show of blood, increasing during the last fortnight into decided hemorrhage, with severe backache. She presented the appearance of grave disease and advanced age; was in a state of complete mental and physical prostration, crying and frightened, and as hyperesthetic as if she was in the agonies of acute strychnine poisoning. She had just been bluntly told by a doctor on whom she called that "she had a

cancer, and unless she had it cut out at once she would not be alive in three weeks." The horrible information threw her into a state of collapse, and an examination was out of the question. Fortunately, the tonic and sedative influence of static electricity may be availed of without touching the patient or removing any garments. After a soothing application and encouraging advice, she went home free from pain, slept restfully and regained composure. An internal examination was purposely avoided, while she was diverted from thoughts of cancer and told that it would be time enough in a month or so to find out what was the matter with her. Bovinine was added to her nourishment, and her electrical treatment directed to relieving the backache, improving nutrition and nerve tone and reducing the hemorrhage. Daily static electrization was given for fifteen minutes, and percutaneous, lumbo-abdominal applications of 20 to 40 mil. constant current were administered by my able associate, Dr. Fannie W. Oakey, who assumed charge of the case. On the fifth day the hemorrhage was entirely under control, the backache had yielded, as backaches always do, to the mild static spark, and, although an alarm of fire occurred in her home on the 23d, and caused a temporary aggravation of symptoms, she made such steady progress as to raise her hopes that the idea of cancer was a mistake. January 29, record reads: "No oozing; has slight backache late in evening if fatigued during the day, but it leaves on going to bed; all other symptoms are removed; she sleeps well and feels fine." On the 31st she had some uterine oozing of blood for a single day. February 15, after 11 treatments since January 22 (sixteen in all), she became unwell. On the 19th she reported: "Menses about normal this time; best period in four months; three days regular flow, drying up naturally on the fourth day. Had some pain, but have always had it when menstruating." Five more treatments carried her up to March 7, when color had returned to her face, and she felt and seemed, to all appearances, in good condition to be examined and know the worst. A microscopic examination confirmed a diagnosis of epithelioma of the cervix. Her husband was at once informed of the diagnosis and advised to arrange an early operation, and electrical treatment was stopped. I never saw her again. The operation, performed in one of the hospitals of New York, proved fatal. Under the circumstances of her peculiar case, I do not know what other agencies could have been employed to equal the comfort or surpass the benefit she derived from the application of electricity, by only general methods, during the month which prepared her so well for—death.

865 Union Street, Brooklyn, N. Y.

Book Reviews.

THE PRINCIPLES AND PRACTICE OF BANDAGING. By Gwilym G. Davis, M. D. Published by George S. Davis, Detroit. $3.00.

The bandage in surgery is a power for good, or evil, according to the skill of the operator, as shown in its application. Properly used, and applied, it works only good, but if applied carelessly it may cost the limb, or, perhaps, the life of the unfortunate subject. Aside from this, it frequently becomes a criterion in the eyes of the patient and his friends of the skill and dexterity of his surgeon.

The title of the volume under review states the scope of the work. In it the principles of the art are clearly enunciated, and the objects to be attained by its practice are also stated. The practical part predominates as it should do. The various bandages, the "roller," "tailed or sling," and the "handkerchief" varieties, with their subdivisions, are thoroughly described and illustrated in outline, by an abundance of cuts from drawings, or photographs, thus insuring an accuracy which renders the understanding of their application easy. Several of the bandages were invented by Dr. Davis. The book consists of 61 pages of fine letter press, filled to the covers with information valuable not only to the student and young practitioner, but also to the older members of the profession, by calling to mind many useful applications of this remedial means, which are too apt to be forgotten. It is sufficient, to say further, that the work is complete; the directions plain; the style finished; and we can confidently recommend the work as being so far the best on the subject brought to our notice.

E. W. B.

AMERICAN MEDICAL REVIEW. A monthly review of current medical literature. R. N. Plummer Co., New York, publishers. $1 a year.

This is another medical journal which has just been launched for professional favor. There are some interesting features about it as a review magazine. It condenses some articles from a few of the medical journals. The most important feature in the first number is the medical index, giving a sort of directory index of the original articles of the various medical journals of this country. This it is the intention of the publishers to keep up and may prove a valuable aid to its exchanges and those of the profession who desire to be kept informed of new articles. We wish the enterprise abundant success.

The January Forum will contain an interesting article on the bicycle, with especial reference to its use by women, by Dr. Henry J. Garrigues, a leading physician of New York.

The College and Clinical Record will be hereafter known under the name of Dunglison's College and Clinical Record; a monthly journal of practical medicine.

LITERATURE FOR MEDICAL STUDENTS.

No one disputes, least of all those engaged in teaching, that the literature commended for the use of the medical student forms an important factor in his comprehension of the various aspects of his special field of biology.

Even regarded as mere adjunctives to didactic and laboratory teaching, books are of the first importance to him in his studies.

The conceptions formed by him of

many subjects are due, and due alone, to the lucidity of the writer he follows.

That all writers, even those of magnificent ability, have not the power of clear and logical exposition, is unfortunately evidenced in many treatises upon medicine, and its collateral sciences. Many of the works quoted and most esteemed by the medical fraternity, invaluable as they are, do not fill the needs of the college student. They assume a more intimate knowledge of the data of the collateral sciences not possessed as a rule by the undergraduate.

In all literature, perhaps, the best expositors are the English; certainly, the history of every aspect of English literature when compared with that of other peoples and other languages will bear out this opinion. Still, it is but a matter of opinion. It may be simply one aspect of the personal equation, but the writer has found, as a rule, the elementary text books written by English scientists were those presenting the subject matter in the clearest light, and in the manner of a gradual unfolding to the uninitiated. The writer recalls with pleasure the great benefit derived from a use of one series of manuals, while an undergraduate; these were, or are, called "A Series of Students' Manuals," written by English medical men and published by Lea Bros.

It is a matter of surprise to find how few students are familiar with these manuals.

They are not by any means "quiz books," that class of publication representing merely a printed note-book, but are treatises, in which the subject general of some one branch of medicine is boiled down, leaving the essentials, and these presented in such a manner as to be easily comprehensible to students.

Two in particular of this series, a little book by Pepper, on "Surgical Pathology," and one on comparative anatomy, of Bell, might well serve as patterns for more pretentious volumes.

They are good literature, and most excellent scientific treatises, and will give students a circular comprehension of the subjects discussed.

The writer now gives these books a place on the shelves beside treatises many times their size, and they only suffer in comparison by size, not by worth of contents.

Henry H. Burchard.

Current Medical Literature.

A CASE OF PHTHISIS APPARENTLY CURED.

BY WILLIAM PEPPER, M.D., LL.D.

The patient was a woman, 21 years old, with all the symptoms of phthisis, including tubercle bacilli in sputum. The patient was placed upon a diet of egg-albumen, which seemed to agree with her stomach better than any other food, and this diet was forced so that she consumed daily the albumen of two dozen eggs. The medical treatment consisted of 1-100 of a grain of strychnine nitrate, with 1-1000 of a grain of atropine sulphate, every two hours hypodermatically, and 1-50 of a grain of strychnine nitrate with 1-12 of a grain of the double chloride of gold and sodium, and half of a grain of a vegetable digestive every two hours by mouth. After a few days the amount of gold and sodium was increased to one-eighth of a grain every two hours. She was given cod liver oil inunctions and general massage with passive movements once daily. At first she showed signs of strychnine intoxication, and the dose was reduced, but she soon resumed the original dose, and after the first two weeks she bore the drug well, although always just inside the border line of its toxic action. During April she improved decidedly; she regained flesh, the fever became less marked, the night sweats less profuse, the cough was allayed and the expectoration much reduced, though still rich in bacilli. During May the improvement was very rapid. By the latter part of the month she had recovered her normal weight, 125 pounds. The fever and night sweats had disappeared, the appetite was good and the digestion normal, the cough was almost gone and tubercle bacilli had disappeared from the sputum, which was still expectorated in very slight amount. All signs of consolidation in the right apex and base of the left lung had disappeared, the only remaining sign was slightly harsh breathing at those sites. She was instructed to continue her general treatment, to return to a normal diet, to practice forced, deep breathing and graduated exercises, and was sent to the mountains. In September she returned to the city in perfect health. Her weight was 132 pounds; she was robust and muscular, with better chest expansion than she had ever possessed before in her life. There was no cough or expectoration, the lungs were in all respects entirely normal, except for a patch of emphysematous breathing in the base of the left lung. She re-entered upon her social duties and has since led a busy life. Her health continued perfect until early in August, 1895, when she had a slight attack of pneumonia, involving the base of the left lung. The sputum was sparse, resembled prune juice, and was crowded with pneumococci and tubercle bacilli. The attack ended by crisis on the eighth day, and a few days later she was again sent to the mountains. She returned in ten days with a recurrence of all the symptoms of the attack of two years previous. Her weight had fallen to 114 pounds, there were anorexia, fever, cough and free expectoration, which was full of tubercle bacilli. In the base of the left lung was consolidation with moist rales. She was placed on the same treatment given her during the first attack and she rapidly regained flesh and strength. On November 1 her weight was again up to 124 pounds, all fever was gone, the cough and expectoration had almost disappeared. Tubercle bacilli were not to

be found since the last week in October. The consolidation had become greatly reduced, but was still present, when a few days later she was again sent to the mountains.

Noteworthy points in this case are: The sudden onset, quite like general miliary tuberculosis; the large number of bacilli; the rapid recovery, all the more remarkable with a pronounced tubercular family history; the complete disappearance of consolidation and bacilli; the acute reappearance after two years of the whole train of symptoms, with signs in the base of the left lung directly following an attack of pneumonia located in that vulnerable part; the large number of bacilli and their early complete disappearance in the second attack; the abatement of the consolidating process and rapid recovery of the general health after the second attack; the absence from the treatment of all cough-medication and antiseptics, and the large doses of strychnine nitrate and the double chloride of gold and sodium, with which the system was kept literally saturated.—University Medical Magazine.

REMARKS ON THE EMPLOYMENT OF LIQUID VASELINE IN THE TREATMENT OF AFFECTIONS OF THE MIDDLE EAR.

Dr. Delstouche, Brussels.

Since employing this in acute cases he had become less and less in a hurry to perform paracentesis. Prof. Habermann had taken up the method, employing up to fifty centigrammes at a time. Out of thirty cases this otologist had noted great improvement in twenty-two, tinnitus relieved in eighteen, vertigo much diminished in nine. The treatment was indicated in serous, not in sclerotic, catarrh. He quoted Politzer as considering massive injections of vaseline quite innocuous. He introduced the liquid vaseline through a catheter by means of a well-fitting syringe, and followed this up by an air-douche. The vaseline had to be chemically pure or sterilized by boiling. He did not consider the addition of iodoform necessary, but when added there was no need for it to be dissolved in ether. To objectors he stated that it had been proved that liquids could be driven into the tympanum (without counter-opening) if they were mixed with air.

Dr. Sune y Molist, Barcelona, valued the method highly.

Dr. Secretan, Lausanne, thought the quantity of fluid injected should be very limited.

Dr. Dundas Grant, London, said he had found the method surprisingly beneficial, as had also his fellow-countryman, Dr. Adolph Bronner. Dr. Grant employed it in the manner described by Dr. Delstanche—went still further in driving it into the tympanum through a Weber-Liel's intra-tympanic catheter so as forcibly to break down certain adhesions. As regards so-called sclerosis of the middle ear as a contra-indication, there were certain cases in which the diagnosis of sclerotic otitis was perfectly clear and the patient should be spared all treatment, and there were others of equally unmistakable exudative otitis in which active treatment was imperatively called for. —Journal of Laryngology, Nov. 1, 1895.

"ON APOLYSIN AND CITROPHEN, WITH REMARKS ON THE PRACTICAL USEFULNESS OF THE PHENETIDIN DERIVATIVES.

From the Centralblatt fur Innere Medecin, November 9, 1895. By Dr. Hildebrande, of Elberfeld.

Under the names of Apolysin and Citrophen, two combinations of phenetidin with citric acid have lately been clinically experimented with, and recommended. They differ chemically from one another in this, that in Apolysin one molecule of phenetidin is combined with one molecule of citric acid, with the production of water, whilst in citrophen, on the other hand, three molecules of phenetidin are combined with one of citric acid, and without the production of water. The relation of citrophen to Apolysin is, therefore, like

that of the lactate of paraphenetidin to lactophenin. And this difference in chemical constitution determines the different physiological action of these two bodies.

My own experiments on rabbits lead me to coincide fully with the conclusions of Dr. G. Treupel (Deutsche Med. Wochenschrift, 1895, No. 31). I agree with him in his emphatic warning against the unlimited use of citrophen, which is identical with the ordinary citrate of phenetidin.

Apolysin has been recommended, on the one hand, as a more reliable and more rapid antipyretic and analgesic than phenacetin. In point of fact, its poisonousness even when given by subcutaneous injection is much less than that of phenacetin. Even 8 cg. (1 1-4 grains) was well borne subcutaneously by white mice; there was no reaction; whilst even 3 cg. (2-5 grain) of phenacetin was sufficient to call forth the characteristic phenetidin effects.

These experiments demonstrate the innocuousness of even large doses of Apolysin when given subcutaneously, where, of course, the product reaches the alkaline tissue fluids immediately. Its ready decomposition in the gastric juice seems to have led its first advocates to claim that its exhibition was contra-indicated when the stomach was empty, or when there was hyper-secretion. This contra-indication need not be heeded, if, instead of the strongly acid Apolysin powder, the Apolysin tablets are employed. These are composed of one part of bicarbonate of soda and two parts of Apolysin, and they dissolve in water with effervescence. The solution tastes of bicarbonate of soda, and does not react sour, like Apolysin, but slightly alkaline.

The proportions of solubility of the three phenetidin compounds are as follows:

One part of Apolysin requires for its solution 55 parts cold water and less than 1 part boiling water.

One part phenacetin requires for its solution 1400 parts cold water and 80 parts boiling water.

One part lactophenin requires for its solution 330 parts cold water and 55 parts boiling water.

THE RED BLOOD CORPUSCLE IN LEGAL MEDICINE.

M. C. White (Medico-Legal Journal, vol. xii, No. 4), in a very careful paper on the measurements of red blood corpuscles in man and in the lower animals both in the fresh state and when recovered from a clot, concludes (1) that in favorable cases blood stains can be so treated that reliable measurements and credible diagnosis of their origin can be given. (2) That if error occurs on account of imperfect restoration of the form and diameter of the corpuscles obtained from a stain proved by the guaiacum test, the spectroscope and the production of hemin crystals to be blood, the error, if any, will be to make human blood appear like that of one of the inferior animals, and never to mistake the blood of the ox, pig, horse, sheep or goat for human blood. (3) That in general when a stain has been proved to be blood by the above tests, it may be decided certainly whether it is or is not mammalian blood. So also a stain from the blood of the ox, pig, horse, sheep and goat may be distinguished from human blood, thus confirming the claim of an accused person in many cases that his clothes are not stained with human blood. Lastly, the expert can say when the average of a suitable number of corpuscles from a blood stain corresponds with the average of fresh human corpuscles, that the stain is certainly not from the blood of the ox, pig, sheep or goat; and in other cases he can say with great certainty that a given stain is not human blood.

German and Italian

Translated by DR. F. E. CHANDLER.

SERUM TREATMENT OF ERYSIPELAS.

Kopfstein (Wiener Klin., Rundschau, Nos. 33 and 34) gives the results of his experiments with the serum of erysipelas on malignant tumors, and comes to the conclusion that the action of the serum is purely local, the only change being in the immediate vicinity of the new growths.

Even if a diminution in the size of the tumor takes place, no hope of a permanent cure can be based on that fact. He confirms the opinion of Burns, who affirms that this new method of treatment has not advanced in the slightest degree the non-operative treatment of malignant growths.

CAUSES OF CIRRHOSIS OF THE LIVER.

Dr. P. Krawkow (Vratsch, No. 41) says: It is a well-known fact that up to the present time alcohol has been considered as the predominant factor in the etiology of cirrhosis of the liver, but this disease may be due to other causes as well. We need only to mention syphilitic, tubercular, gouty, infectious, diabetic cirrhosis, etc., yet, according to the opinions of most clinicians, these causes play but a secondary role to the great etiological factor, alcohol.

Can this opinion hold its own before the facts of experimental pathology? It is more than doubtful. Numerous experiments made by Strasmam, Athanassieff, Kolden, Pohl and others upon animals have by no means shown that alcohol plays an important role in the production of hepatic cirrhosis. These negative results have awakened doubts in the minds of many as to the influence of alcohol in these cases. The use of alcohol, however, is so universal that we need not be surprised to find alcoholism in the anamnese of most cirrhotics.

Dr. Khabanoff has very justly observed that it would be just as sensible to have alcoholism occupy the principal place in the anamnese of all other diseases.

Latterly attempts have been made to resolve the problem of cirrhosis by bacteriological research. The work done as yet, although not productive of definite results, seems to indicate that the experimenters are on the right track.

In studying the development of the amyloids in animals under the influence of chronic intoxication by different microbes, the author has noticed alterations in the liver, which commenced by a slight diffusion of the cellular tissue and finished by producing a compact connective tissue. He has likewise proved that different microbes produce different degrees of cirrhosis, and that this makes its appearance at different intervals after the microbic infectio 1.

Cirrhotic change of the liver may also be produced by prolonged oral administration of microbic poisons.

Experience has also shown that this disease may develop under the influence of weakening causes, such as intestinal catarrh, etc. Alcohol, according to K., only acts as an enfeebling agent, and predisposes indirectly to cirrhosis.

TREATMENT OF CHRONIC CONSTIPATION.

Dr. J. Schrieber (Wiener Med. Presse, Nos. 21 and 22) calls attention to the great change which has taken place in the treatment of chronic constipation during the last decade. S

has given his attention to the mechanical treatment of this trouble, and has succeeded in curing 90 per cent. of his cases where formerly he had been able to effect a cure in less than 10 per cent.

His treatment requires a duration of from six weeks to three months, and consists in systematic massage of the large intestine for 8 to 10 minutes daily. Considerable force is employed and the friction and pressure are directed by anatomical considerations. The cure is helped by light gymnastics, and, if absolutely necessary, mild purgatives may be employed. The diet must be carefully regulated.

Before commencing massage the absence of floating kidneys and of internal or ovarian troubles must be confirmed.

S. distinguishes four forms of chronic constipation: First, in young, vigorous and otherwise healthy persons, where it is due to hereditary predisposition, to a sedentary life or to an indeterminate cause; second, when it results from digestive troubles; third, in neurasthenic or anemic patients; fourth, in the corpulent.

Massage, according to S., seems to be equally efficacious in all cases and worthy of a trial.

HYPERTROPHIED PROSTATE.

Professor Chalot (Independence Medicale, No. 1) proposes to preserve the testicles in operating for hypertrophied prostate whether they will be of any ulterior use or not, and says: "I propose to excise between ligatures the vas deferens of one side, if the hypertrophy of the prostate is clearly unilateral, or of both sides if the disease is median or general."

C. operated thus on a man of 64 years, who made a perfect recovery, and, not knowing what had been done, was in good mental condition. His mistress said that he had as frequent and complete erections and demanded sexual connection after the operation, the same as before.

STEAM AS A HEMOSTATIC.

Sneguirieff (Berliner Clinic, No. 4) records a case of enucleation of a hydatid cyst of the spleen where he made use of superheated steam, throwing a jet of it on the large end of the tumor. Then he made a cut seven inches long, and laid bare the tumor. There was no hemorrhage. The deep hemorrhage which came on during the enucleation of the tumor was stopped short by a jet of steam. In this manner, and without losing a drop of blood, he succeeded in enucleating the whole ruptured echinococcus sac.

USES OF TURPENTINE SUBCUTANEOUSLY.

Dr. B. Nagy (Oroosi hetilap, No. 9) has tried subcutaneous injections of essence of turpentine in the three following cases. The temperature was elevated to 39 C.

1. A woman affected off and on for fifteen years with maniacal excitement. The day after injection of 0.5 gm. the mental state became normal and remained so up to the end of her stay. The artificial fever lasted four to five days.

2. A woman taken for the first time with mental confusion and depression. Subcutaneous injection of 0.25 gm. The next day the patient had recovered her mental faculties.

3. A woman taken with mental confusion of hysterical origin. Injection followed by amelioration. Relapse two weeks later.

TREATMENT OF WHOOPING-COUGH.

Dr. Stooss, of Berne, has used in the last four years only bromoform and antipasmine in the treatment of whooping-cough. His results are very satisfactory.

Bromoform causes in most cases a very marked diminution in the frequency and intensity of the attacks, but cannot positively be said to shorten the duration of the malady.

In children of one year and less Dr. S. uses antispasmine (a mixture of sodic narceine and salicylate of soda) on account of the narcotic effect which bromoform sometimes produces on the little patients.

Its action is the same as bromoform, and is well taken by infants of but a few months old.

Dose for children under one year, 0.01 to 0.015 gm., three or four times daily. It is usually administered in a 0.2 per cent. solution, and parents are recommended to give the medicine immediately after a coughing spell.

Antispasmine has also been found of great use in the atrocious cough of children suffering from measles.

Russian and German

Translated by DR. A. D. DAVIDOW.

AN ATTEMPT TO MODIFY THE OSTEPLASTIC OPERATION OF THE KNEE-JOINT.

S. Delizin, Wratch. No. 24.

Author modified Gabansen's method and operated as follows: Forming the anterior flap by a downwards semilunar cut, commencing from the most prominent condyle of the femur. The muscles lying between the tibia and fibula—tibialis and extensor dig. communis—are severed in an oblique direction. The head of the fibula and the epiphysis of the tibia are sawed off, in the direction from below, upwards and from the front posteriorly. The sawed off pieces are placed anteriorly on the top, the posterior joint capsule is cut open with scalpel, as well as the big cruciata and the side supporting bands between the upper and lower parts of the joint. Now the lower anterior portion of the condyles of the femur is sawed off from anterior posteriorly in an oblique direction, so that this portion with that sawed off from the tibia will form a right angle. In this way the parts are brought together; then the arterial vein and nerve are ligated in the knee hollow, the amputation ended, the posterior short skin muscle flap smoothed, the bone ends held together by silk or metalic suture and the skin wound sewed together to the posterior flap of the stump.

The preference in this method is the following:

1. The bone ends of the upper and lower bones are brought together, not in a straight line, but in an angle of 45 degrees.
2. With the exception of the epiphysis of the tibia, the head of the fibula remains, and with it the place of insertion of the biceps.
3. The ligation of the large vessels is not done at the beginning of the operation, but quite close at the end.

MALIGNANT NEOPLASMS.

Centralbl. f. Chirurgie, No. 20, 1895.

Dr. Kronacher, of Munich, calls attention to the observations that lupus and malignant neoplasms of various kinds are influenced to a certain extent by acute inflammations in their periphery, as for example erysipelas. An arrest occurs in their growth, and in some cases of lupus a cure is effected. For these reasons attempts have been made to treat these tumors by innoculation of erysipelas cocci or of bactherial toxines. It is as yet undecided whether bacteria and their poisonous products or whether the inflammation set up is responsible for the favorable influence upon the neoplasm. To settle this question Kronacher has produced aseptic suppuration in the vicinity of inoperable carcinomata by means of injections of pure oil of turpentine, and obtained noteworthy changes in the new growth, which he intends to describe in a later communication.

Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor

TREATMENT OF HEMORRHOIDS.

Allg. Med. Centr. Ztg.

Dr. Schmey recommends a simple means of treating hemorrhoids which he has successfully employed in a number of cases, three of which are reported in detail. It consists in painting the nodules once daily with a two per cent. solution of nitrate of silver, which causes a gradual reduction in size without the least pain. In the cases reported the tumors had entirely disappeared in the course of one or two weeks. As there are many patients who positively refuse operative treatment this new procedure is well worthy of attention.

THE SURGICAL ASPECT OF TUBERCULOSIS.

Med and Surg. Reporter, Nov. 28, 1895.

Less than fifty years ago scrofula was a vague condition, which the surgeon treated by laying on iodine with a paint brush, much as kings, in the previous centuries, had laid their hands on the afflicted ones. By degrees the subject became more clearly understood, until Koch demonstrated the bacillus, and tuberculosis took the place of older term. Tuberculosis may now be defined to mean an infective disease in which the tissue changes are due to the action of a specific micro-organism, the tubercle bacillus. These changes are those of a low and usually chronic type, the inflammatory process feeble and insidious, and there is little tendency to produce a defensive barrier which will isolate the infected region. The use of the term neoplasm, in regard to tuberculosis, is fallacious. Caseation, a process of necrosis and fatty degeneration, is so common as to be almost characteristic. Caseous matter is not deposited, in the usual pathological sense, simply a mass of dead material comparable to the sequestrum of necrosis of bone (not inspissated pus), and is incapable of so active a process as pus formation. Suppuration, to rid the body of the noxious mass, is often excited in the tissues around it, though it does not involve suppuration of necessity, as it may become inspissated, calcareous or encysted. It is as desirable to remove a caseous mass as a piece of necrosed bone, although in regard to the tubercular lesion the proposition is modified by many circumstances.

To set in action the tuberculous process there must be present the seed (tubercle bacillus), and a suitable soil. It is evident the soil is of the more importance, as in the haunts of men this bacillus is liberally distributed, and the non-tuberculous individual is one in whose tissues this cannot obtain a hold.

The first elements in treatment are plenty of air, plenty of sunshine, and plenty of good food. Patients do not do well in densely wooded districts, in valleys, by the banks of large rivers and in moist places. They do better by the sea, in districts with low rainfall, with a porous soil, sparse vegetation, and an unimpeded rush of air from the sea. In England there is some difficulty in spending much time in the open air in winter, although I have had patients with high temperatures and suppurating wounds, with acute joint mischief and psoas abscesses out of doors every day in the winter, in spite of snow, frost and rain.

From not treating tubercular inflammations at all, the extreme of treating them too much was reached, but the mean has probably now been reached.

In treating tubercular joints it is

no longer customary to force the limb into a stereotyped strained position, but to place it gently at complete rest, and keep it there. By this treatment the joints generally get well.

In the treatment of gland disease it is essential, in the first place, that the periphery be examined and any exciting cause dealt with, and secondly, the part must be kept at rest. This detail must be observed as much when the neck is under treatment as the axilla or groin. Frequently, of course, it is necessary to remove the glands, but by no means in every case. In tuberculous testes the modern treatment is to open and curette the epididymis as soon as softening is found, and to pack with iodoform gauze. Repetition may be necessary, but the result is usually a success.

LUMBAR PUNCTURE.

(From International Journal of Surgery.)

The procedure of spinal puncture which was first recommended by Quincke, more than four years ago, has recently attracted considerable attention as a means of diagnosis and treatment in certain diseases of the brain, although it has not been utilized to any extent in this country. This method, which is based upon the existence of a communication between the subarachnoid space and the ventricles of the brain, consists in the tapping of the vertebral canal with a fine aspirating needle or the needle of a large hypodermic syringe in the lumbar region between the second and fifth lumbar vertebra. It is still a matter of question whether this method is chiefly of diagnostic or therapeutic value. According to Furbringer, it is especially valuable for diagnostic purposes, enabling the physician to differentiate between tubercular meningitis and the serous and purulent forms of the disease. In 80 per cent. of the 37 cases observed by Furbringer the diagnosis of tubercular meningitis was confirmed by the detection of tubercle bacilli in the fluid evacuated by puncture. Ewald, Naunyn, Heubner, Freyhan and Senator have also directed attention to the diagnostic importance of lumbar puncture. Aside from the presence of tubercle bacilli, the occurrence of pus, blood, or even of an excessive amount of albumin may also be of some diagnostic significance. It has been emphasized by Lichtheim that in doubtful cases the presence of purulent meningitis may be positively demonstrated by the existence of pus in the fluid withdrawn. From a practical standpoint this may be of importance in operations for cerebral abscess or sinus thrombosis, by showing whether or not the primary disease is complicated by a purulent meningitis.

THE SYMPTOMS AND TREATMENT OF VARIOUS TYPES OF APPENDICITIS.

Abstracted from the Medical and Surgical Reporter.

BY THOMAS H. MANLEY, M. D., NEW YORK.

Perforative appendicitis, with purulent and feculent infection of the cavity of the peritoneum, depending on primary and immediate connection between the lumen of the appendix and the serous space, or the consecutive bursting of an encysted perityphlitic abscess, is the gravest form of appendicitis, or perityphlitis, and all accord that without the aid of surgery death is inevitable. It may, moreover, be added that even under the most favorable auspices the operative mortality is large.

The conditions which confront us and the signs of profound constitutional disturbance warn us that death is not far off. Often the question which is forced on us is not how shall we operate, but rather shall we hazard any radical measure.

Our patient's general condition is such as to contra-indicate any protracted operation, which the one to be undertaken always is; therefore, our only justification for it is that it is the only possible alternative, however doubtful may be its results.

Formidable difficulties lie in the way of the operator. We can all appreciate the importance, in this desperate class, of rapid operating, of reducing the anesthesia, and of completing our manipulations within the peritoneum in the briefest period of time.

Pathologic changes have produced extensive derangement of the normal anatomical relations and an operator must now depend on his experience and practical acquaintance with this peculiar and unusual type, rather than on his knowledge of the healthy structures.

Under all circumstances, we should insist that the operation be thorough and complete, unless serious symptoms suddenly develop.

A large incision will hardly do here, else we will almost inevitably invite an extension of intestine to embarrass us. As in operating for chronic appendicitis, our incision should be to the outer side of the linea semi-lunaris. We are compelled to depend in a large measure on the sense of touch to detect the appendix in the tympanitic abdomen. With the finger passed through the incision, we grope for the appendix and for pus accumulations. If the perforated or gangrenous appendix comes up into the wound, we may quickly deal with it. But in not a few instances such profound collapse sets in after the peritoneum is opened that we may not tarry to find the appendix, but must hurriedly bring the operation to a close, however incomplete it may be.

It may, perhaps, seem like supererogation to inquire if at this stage we should flush the peritoneal cavity with antiseptics or sterilized fluids, or whether we should depend entirely on drainage?

Antiseptics have long since been cast aside in peritoneal surgery. It is well to know that warm water will not wash away pus from serous surfaces. My own experience has rather inclined me to discard flushing in all these cases unless the quantity of foul material is excessive. Having cleared the peritoneal cavity of all foreign material and left an ample vent for the residue, we have done quite enough; besides, we have greatly reduced the time, so dangerous an element in these cases.

HOSPITAL OR HOME TREATMENT.

It does not appear that anyone has yet attempted to determine the relative frequency of this disease in the various classes of society. It seems to prevail, however, with equal frequency among all, without regard to social caste. Evidently, then, we must be prepared to treat it among the middle and lower classes more frequently than among the wealthy, for, in numbers, they predominate.

Can operative cases be managed at home equally as successfully as in a hospital?

It is my conviction that they can be, and even more so. This is no novel or theoretical notion of mine, for I have formally taken this ground in the Academy of Medicine, and have statistics to support the statement.

For the mechanical part of the treatment, with a large staff of assistants and nurses, besides an abundance of instruments, it at first seems that a hospital equipment gives better guarantee of results than could be provided at one's own home, but, like a great many theories, strong from the speculative side, this one is delusive in practice.

To begin with, to move a patient in an advanced stage of appendicitis out of his bed exposes him to draughts, and the jolting consequent to transport to hospital adds fresh danger and diminishes the prospects of recovery. No hospital constructed can, or ever will, provide the sympathetic, unremitting attention of a well-kept home. Too many assistants only stand in one another's way. Of instruments, it may be said, the fewer the better; what only is needed is skill and discretion in the use of them.

Of late years the too general practice of sending these cases to hospitals has operated to the disadvantage of the patient and has tended practically to remove from one's clientele many cases of unusual interest and profit. Surgeons give their services to our hospitals without compensation, and why should they not also, among the poor and worthy outside, on the representation of the family physician, occasionally gratuitously perform an operation, or so scale their fees that those in moderate circumstances may employ them

to operate, the further conduct of the case being in charge of the family physician?

The loud and general complaint now among practitioners is over an excess of hospitals and their abuses, for which they themselves are largely responsible, and which if remedied the work of reform must commence with themselves.

Current Literature in Obstetrics and Gynecology.

NEW AND SPEEDY METHOD OF DILATING A RIGID OS IN PARTURITION.

At a meeting of the Obstetrical Society of London, Dr. Farrar (Gainsborough) gave the details of two cases in which he had used a ten per cent. solution of cocaine as an application to the rigid os. In one case he had applied the cocaine after endeavoring vainly to relax the cervix by means of chloral, bromide of potassium and morphia, and the most persistent attempts at digital and mechanical dilatation, with and without chloroform. He decided upon incising the os, and used the cocaine to this end. After five minutes he introduced the finger as a guide to the scissors, and, to his surprise, found the os widely dilated. In the second case, a primipara, forty-eight years of age, he used every effort, as before, to produce relaxation, and waited three days before making the application of cocaine, which was immediately successful. In four minuates the os had yielded. He considered the dilatation to be due to the cocaine in both cases. Dr. Armand Routh said that Dr. Dibbs, of Shankin, had recommended cocaine as relieving the pains of the first stage of labor, and that Mr. Head Moore advised cocaine and boric acid pessaries in cases of rigid os. He himself had found it useful. The president, Dr. G. E. Herman, said that two cases were rather a slender foundation upon which to base a conclusion, but if Dr. Farrar's results were confirmed by further experience, he would have made a valuable addition to our obstetric resources.

—The Lancet.

IMPROVEMENT OF THE PHYSIQUE BEFORE BIRTH.

At a recent meeting of the Paris Academy of Medicine, a report of which is published in the Journal des Praticiens for November 30, M. Pinard spoke on what he called "intra-uterine puericulture." He stated that the care and medical treatment given to abandoned women who were received into the special establishments known as refuges for pregnant women had led to the disappearance of the majority of grave symptoms formerly observed in those who applied for medical treatment. During his service in one of these establishments he had noticed that the majority of the children born to women who had lived in the refuge during their pregnancy were remarkable for their development.

M. Pinard has made a comparison of the weight of the children of these women with that of the children of women who had continued to work up to the time of their confinement, and has obtained the following results: The average weight of the children of five hundred women who had continued working was six pounds; that of the children of the women who had been in the refuge for at least ten days was six pounds and a half, while that of the children of the women who had lived in the refuge during their pregnancy was 8 pounds.

M. Tarnier was cited by M. Pinard as having observed the following results at the Maternite during a period of sixteen years: Among the children of primiparae the average weight of 3794 boys was six pounds and a half, and that of 3159 girls six

pounds and a quarter; in the children of multiparae the average weight of 4623 boys was eight pounds and a half, and that of 4025 girls seven pounds.

M. Pinard has also made a comparison of the duration of pregnancy in the women who had sought medical care and treatment in the refuges with that of the women who had not been taken care of, by estimating the lapse of time between the last period of menstruation and confinement, and he has arrived at the following results: Among 1000 women who had worked up to the time of their confinement, 280 days had elapsed in 482 cases, from 270 to 280 days in 279 cases, and less than 270 days in 239 cases. In 1000 women who had lived in the refuge during their pregnancy, 280 days or more had elapsed in 660 cases, from 270 to 280 days in 214 cases, and less than 270 days in 126 cases.

We know, says M. Pinard, what is to be done in order that the period of gestation may not be interfered with, so that the development of the child may be as complete as possible, for premature birth is not to be regarded with indifference. The foregoing figures, he said, spoke for themselves, and also showed what we had to do for the development of a strong population.

It seems that the first of these refuges was established by private munificence, and that shortly afterward the city of Paris opened one of like character, the Michelet Asylum. M. Pinard seems to have shown good reasons for hoping that they may be multiplied.

N. Y. Med. Journal.

RAPID DILATATION OF THE OS DURING LABOR.

Demelin (Rev. Obstet. Inter., November 11, 1895) has found this proceeding necessary in many cases. In the interests of the mother he has dilated the os for eclampsia in two cases; faulty insertion of placenta, 5 cases; cardiac asphyxia, 1 case, and apoplexy, 1 case. In order to save the child he has dilated the os for lingering labor in five cases; rigidity of the cervix, 3 cases; shoulder presentation, 3 cases; face presentation, 1 case; compression of the funis in vertex presentation, 4 cases; prolapse of the funis in 3 cases, and amniotic infection in 2 cases. In this last class the infection of the waters, especially when the membranes have ruptured early, is serious for the mother, but especially grave for the child. In order to save it from pneumonia or infectious enteritis which come on soon after birth, it must be removed as quickly as possible from its poisonous surroundings. In eclampsia rapid dilatation is indicated, and it speedily terminates a perilous delivery without in itself increasing the number of convulsions. Demelin maintains that rapid delivery is quite the order of the day, the old prejudice having passed away. In the circumstances given in detail above it is dangerous to wait for complete spontaneous dilatation. On the other hand Demelin admits that the practice is likely to be abused.

—British Medical Journal.

SEPSIS DURING PREGNANCY.

Bar and Renon (Repert. Universel d' Obstet. et de Gynec., September 25, 1895) read at the recent congress at Bordeaux a clinical report of a case of "streptococcism" in pregnancy. A woman was admitted into hospital suffering from high fever. She was about eight months pregnant, and occasional pains set in. Some cervical secretion was removed for examination before any obstetrical manipulations. Cultivations proved that the secretion contained streptococcus. As the patient was very ill labor was hastened. Specimens of placental maternal blood were cultivated, and colonies of pure streptococci were obtained. The child died before birth; samples of its blood from the placenta, liver and heart, and fragments of the liver and lungs were cultivated. The cultures remained sterile. The mother died 53 hours after delivery, and pus was found in the parametrium. Bar and Renon maintain that the "streptococcism" provoked labor. Though the fetus succumbed, there is no evidence that the germs invaded the fetal organism through the placenta.—British Medical Journal.

Therapeutical Progress.

BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

ABRIN.—Brownish yellow powder, soluble in water. Fatal dose one one hundredth of a grain. For producing artificial conjunctivitis in ophthalmology like the abrus precatorius, whence it is derived.

ABSINTHIN.—Brilliant, prismatic colorless, bitter crystals, soluble in A. C. E., slightly soluble in water. Digestive stimulant. Dose 1 to 2 grs. at meals.

ACETAL (diethyl-acetal, ethylidene diethyl ether).—Limpid liquid; sp. gr. at 22 degrees C. (71.6 F.), 0.821; soluble in 18 parts of water. Hypnotic narcotic. Dose 1 to 2 fl. drs.

ACETANILID. (Phenylacetamide, anti-febrin).—Fine white crystal. Max. single doses 15 grs., daily 60 grs. Antipyretic, analgesic. Antifebrin, oz. 15; acetanilid, lb.

ACETOPHENONE (Phenylemethylketone hypnone).—Highly refractive, volatile, colorless liquid, with an odor resembling bitter almonds; disagreeable burning taste. Hypnotic anodyne. Dose 2 to 8 minims.

ACETONE-RESORCIN. — Combination of two molecules of resorcin with one of acetone. Small anhydrous prisms, soluble in alkalies, insoluble in W., A., E., C.; uses same as resorcin.

ACID ANISIC.—Colorless prisms, soluble in A., insoluble in water. Antiseptic, antipyretic (wounds or acute rheumatism). Dose, sodium salt 15 grains.

ACID CAMPHORIS. — Colorless, transparent; bitter crystals or plates. Soluble in A., E., oils, hot water, slightly in cold water. (Nasal ulcers, etc.) In douche, spray or paint, 1-2 to 2 per cent. solution. Antisudorific (night sweats). Dose, 12 grains every 4 hours, or 30 grains at night.

ACID CATHARTINIC.—Brown hygroscopic scales. Soluble in water or dilute A. Laxative cathartic. Dose 4 to 6 grs.

ACID CINNAMIC. (Cinnamylic.)—White, odorless crystals. Soluble in A., E., hot water. Insoluble in cold water. Antitubercular. Intravenous dose, 1 to 5 grs. in 5 per cent. oily emulsion, with 0.7 per cent. solution of Na. Cl. Locally in lupus, etc., in 5 per cent. emulsion or solution with cocaine.

ACID CRESOTIC.—Three homologous acids occur in volatile, prismatic needles. Sodium salts only are used.

ACID DITHIOSALICYLIC.—Powerful antiseptic. The salts only of the two isomeric acids are used.

ACID GLYCERIN-PHOSPHORIC. —Glycerin ester of phosphoric acid. One of the principal components of lecithin, the most valuable phosphoric food constituent. Faintly yellow, odorless, oily liquid, soluble in water, A. For therapeutic uses, dose and price, see calcium glycerophosphate.

ACID GYMNEMIC.—Brown crystaline powder. Soluble in A., less so in water. Insoluble C. E., emetic. Dose 4 to 6 grs. To disguise bitter taste rinse the mouth with a 5 per cent. solution.

ACID, GYNOCARDIC. — Yellowish unctuous solid, of peculiar strong odor and burning, acrid taste. Used externally and internally like chaulmoogra oil in leprosy, syphilis, gout, rheumatism, etc. Dose, 1 to 3 grs. As a liniment in 10 to 50 per cent. oily solution.

ACID OSMIC. (Per-osmis, osmic anhydride.)—Lustrous orange, hygroscopic needles of suffocating and penetrating odor. Antiseptic discutient (when applied pure) anti-neuralgic (epilepsy, sciatica). Hypodermic injection, 7 to 15 minims of 1 per cent. solution several times daily. Dose, one-fiftieth gr. in pill three or four times daily.

ACID PHENYLACETIC. (Alpha-toulic.)—Lustrous crystals. Soluble in A. E., hot water. Less soluble in cold water. Antiseptic, antitubercular. (Phthisis, typhoid fever, etc.) Dose, 1 to 3 grs. three times daily, in water.

ACID SALICYL-SULPHURIC. (Sulphosalicylic, salicylsulphonic.)—White crystals. Soluble W. A. Test for proteids, urine albumin, etc.

ACID SCLEROTIC. (Sclerotinic.)—Dragendorff's. Faintly acid, hygroscopic powder, odorless, tasteless. Soluble in water, difficulty in A. Substitute for ergot in epilepsy, inferior to E. in gynecology. Dose, one-half to 5 grs. per day.

ACID TRICHLORACETIC. (Chloracetic.)—Deliquescent, colorless crystals of faint odor, very caustic. Soluble in water, A., E. Powerful escharotic, pure. (Warts, nevi, corns, etc.) Astringent in nasal and laryngeal affections in 10 per cent. solutions. Test for urine albumin.

ADONIDIN.—Glucoside from adonis vernalis. Yellow, very bitter, hygroscopic powder. Soluble in water, A., E. Cardiac tonic, regulating the heart beats in dyspnea, palpitation, etc. Dose, one-sixth to 1 gr., four times daily with ammonium carbonate and chloroform water.

AGARICIN. (Agaric, agaracic or agaracinic acid.)—From white agaric, white microscopic scales, colorless, odorless, insipid. Soluble in A., hot water, slightly in E. and cold water. Almost insoluble in C. Antisudorific (in night sweats), one-third to two-thirds gr. in pill at night, or less hypodermically.

AGOPYRIN.—A mixture of antipyrine salicylate, ammonium chloride and cinchonine sulphate. For coryza, bronchitis, influenza, etc.

AESCULIN. (Polychrome, bicolorin.)—Lustrous white acicular crystals. Soluble in hot water, fluorescent. Substitute for quinine in remittent fever.

AGAIHIN. (Methylphenylhydrazine salicylate.)—Small colorless or greenish scales, inodorous, tasteless. Soluble in A., E., Benz. Insoluble in water. Antirheumatic, anti-neuralgic. Dose, 2 to 8 grs., two or three times daily.

AITROL. (Bismuth oxy-iodo-gallate.)—Gray-green, fine voluminous, tasteless, odorless powder, permanent in dry air, but converted in damp air to a red basic bismuth compound. Soluble in soda solutions. Forms emulsion with glycerine and W. Use same as iodoform.

ALBOLENE.—A white, odorless, neutral petroleum jelly and oil.

ALLYL TRIBROMIDE. (Tri-bromhydrin.)—Colorless or slightly yellowish liquid. Soluble in E. Sedative, anodyne (hysteria, asthma, whooping-cough, etc). Dose, 5 drops, three or four times daily. Inj. 2 to 4 drops dissolved in E.

ALUMINUM AND AMMONIUM GALLATE.—See gallal.

ALUMINUM ACETO-TARTRATE.—Faintly yellowish granules, with acid, astringent taste, soluble slowly in water. Astringent, disinfectant. (Nasal and laryngeal affections.) Apply in one-half to 2 per cent. solution, or as snuff with 2 parts of boric acid.

ALUMINUM BOROFORMICATE.—Large, well-defined lustrous crystals, sweetish astringent taste. Soluble slowly in water. Astringent, disinfectant, used like aceto-tartrate, but is milder.

ALUMNOL. (Aluminum naphthol-sulphonate.)—White or pinkish powder. Very soluble in water (blue fluorescence) and in glycerin, less so in A. Insoluble in E. Non-irritant, antiseptic. (Wounds, gonorrhea, etc.) one-half to two per cent. solutions. In dermatology, 10, 20 or even 50 per cent. solutions.

(To Be Continued.)

...Prescriptions...

From London Medical Times.

For eczema of the auricle:

R Oxide of zinc.....dr. ss
Almond oil ..... dr. i
Rose water ..... dr. i
Benzoated lard .....dr. ii
Lanolin .....ad. oz. i
—HENRY.

Incontinence of urine:

R Sodii benzoatis,
Sodii salicylatis ..aa gr. xx
Fld. ext. belladonne..gtt. ij
Aque cinnamomi ....oz. iv
M. Sig. A teaspoonful four or five times daily.
—WHITE.

Tricophytosis:

Chrysarobin .....gm. 10 to 25
Salicylic acid .....gm. 5
Ointment of styrax.gm. 5
Ichthyol ....gm. 5
Simple ointment ..gm. 5
—DU CASTELL.

The external use of salicylic acid.—Professor Revillod finds that salicylic acid is rapidly absorbed by the skin, and that acute rheumatism may be successfully treated without internal administration of the drug. It has also been found of value for local joint inflammations in muscular rheumatism and nueralgias. It may be prescribed as follows:

R Acid salicylici .....dr. iv.
Spts. vini rect ....f oz. iv.
Chloroformi . ....f dr. iv.
Tinct. opii .....f dr. v.
Olei dulcis q.s. ad..f oz. xi.
M. Sig. Liniment.

This is to be applied on a flannel, which is to be covered with some impermeable material, morning and evening. In certain solutions a small quantity of chloroform may be added —say 5 per cent. This addition serve as an analgesic; besides, favors the absorption of the medicament. About twenty minutes after the salicylic is so employed it can be found in the urine, and a few minutes after a salicylic liniment is applied pain vanishes, and it is replaced by a sense of warmth and comfort. By the addition of opium the sedative properties of the mixture are enhanced so that it serves more effectually as an analgesic in painful neuralgic affections and thus obviates the necessity of administering anodynes internally.

Eruptions due to intestinal decomposition:

R Menthol ....gr. iss.
Oil of sweet almonds.mv.

Make one capsule. Take six to ten capsules daily.
—WIEN KLIN. WOCH.

Treatment of burns:

Aristol .. ..5-10 parts
Olive oil .....20 "
Vaseline,
Lanoline .....aa 40 "
—HAAS.

Hepatic stimulant.—The chloride of ammonium has a special action upon the liver, increasing the flow of bile (Ringer). It is also recommended as of use in the first stage of cirrhosis (Bartholow), and in catarrh of the stomach and bowels. It may be prescribed thus:

R Ammon. chlorid ....dr. iii.
Sodii chlorid .....dr. i.
Succi taraxaci ....dr. ii.
Dec. aloes. co..ad dr. viii.
Sig. dr. ii—dr. iv. in water three times a day.

Emphysema.—To relieve the spasmodic cough, the following will be found useful with or without terebene, which may also be given separately:

Tinct. lobeliæ .....dr. ii.
Sp. ether sulph ....dr. iii.
Tinct. conii .....dr. ii.
Mist. amygd .ad. dr. vi. m.
Sig A tablespoonful every three or four hours.

Flatulent gastritis.—Germain See strongly recommends cannabis indica as a gastric sedative of particular value in functional disorders of the stomach and bowels attended with pain, acidity, and flatulence. He advises 3-4 grain of the extract to be given in three doses, or it may be prescribed thus:

R Tinct. cannab. ind.dr. i.-dr. ii.
Creasoti .....m. v.
Syrup acaciæ .....oz. iii.
Sig. A teaspoonful before meals.

For Physicians' Wives

OUR NEW DEPARTMENT.

In opening a department for physicians' wives it is the purpose of the editor of this journal to make the same as interesting as possible to the average reader. We recognize the fact that many wives of physicians are not posted in all the technical names which appear in medicine, and they will be eliminated as far as possible. We shall in this department invite letters pertaining to the care of the household and sanitary and hygienic methods for nursing the sick and the management of children from any who are willing to advance the cause of woman's work along these lines. We hope to present, from time to time, dietary lists for the benefit of our readers who desire them, and miscellaneous articles of interest on various other topics. We recognize that this is a new departure for medical journalism, and we trust it will be received with favor amongst the practicing fraternity, to whom the advancement of woman's work in their own homes often means the making of a great and successful career.

THE WEARING OF SHOULDER STRAPS.

"A number of women have hopelessly deformed their shoulders by the wearing of shoulder-straps," said a physical culture enthusiast the other day, to a class of ladies. "The weight of the skirts on the straps has worn little furrows in the heavy muscles of the shoulders. Just notice the shape of women who wear narrow straps. Of course, it is not observable when they are dressed in ordinary costume, but in evening dress I can pick out everyone in the room who is in the habit of wearing straps.

"The proper thing is a fitted waist, with heavy material set in round the arm-holes, and down the sides, as stays or strengthening pieces. To these are attached the buttons or hooks that sustain the weight of the skirts and hose.

"It is absolute suicide to hitch these things upon the ordinary corset. That throws the whole of the weight upon the body below the waist, and is the cause of more distress than one can well imagine. There are a great many people who could not be induced to put shoulder-straps on growing children; indeed, the waist is in every respect more desirable. It need not be high in the neck, but should cover the curve of the shoulders, so that the weight of the garments may rest evenly over them.

"The physical culturist has a wide field, and the time is coming when the possibility of developing the figure of a child will be studied as carefully as the development of the mind."—New York Ledger.

PLAYROOM FOR CHILDREN.

If possible arrange a playroom for the children. By this I do not mean a nursery, where dressing, lessons, meals and kindergarten work is done, but rather an apartment designed for what might be termed outdoor sports.

Very cold days this attic or basement room might be warmed with a coal, oil or gas-stove, if there is no other method of heating. If this is impracticable, however, do not in consequence give up the idea of a playroom. There are rainy days in summer and many inclement but mild ones in winter when an unrestrained indoor frolic will be a great treat to the children of this veneered age, when the grandmother's attic is a tale of the past.

In the winter children can don

overshoes, playcoat, cap and mittens, and with a shovel, hoe and wheelbarrow, enjoy many an hour with an indoor sand pile, and, we venture to say, tired mother and nurse will enjoy that hour as well.

Another feature for a playroom is blocks and plenty of them, cut as large as ordinary bricks, so that they can be easily handled with "mittened" hands, and "carted about" in express wagon or wheelbarrow.

An "unemployed" carpenter ought to manufacture dozens of these wooden bricks in a day out of the right kind of lumber. Various sizes of blocks would add much to the interest of building.

Ninepins, in lieu of a bowling alley, is another indoor-outdoor game which the children would appreciate in the playroom, and which outdoor wraps would not interfere with. A big blackboard, where several children can draw at once, is an artistic pastime which mittened fingers can indulge in, and colored crayons will add to the interest.

SCHOOL LUNCHEONS.

Let the children have a little different luncheon to carry every day, in which include a bottle of milk when the weather is not too hot; bread sandwiches, filled with meat chopped fine, scrambled egg, cheese or fruits, are always the basis of the luncheon, with a little jar of fruit of some kind, or apples, or oranges, or bananas, something of the kind, with cookies for a dessert, instead of the cold pie so often found in the children's lunch baskets. Children are very fond, too, of the English biscuits that you can get in tin boxes at any grocery store, and they form a pleasant change from the regular "cookies."—New York Evening World.

TEA GOWNS.

Every woman looks well in a tea gown. Every woman should have at least three. If she is the least bit tasty and knows anything about planning she can get up half a dozen lovely tea gowns for a very short sum.

A tea gown of black and white glace silk is not to be despised. A draping of white chiffon in front makes the gown very dainty and chaste looking.

A dahlia-red tea gown, made a la Medici, looks regal upon almost any woman. The sides and back piece should be tight-fitting, and the front fall from the bust to the hem in a triple box-plait.

An Indian tea gown of copper-colored velveteen is something new. It is made after a design Indian in treatment, but much like the regular Greek frock. A handsome neck ornamentation is made up of ruching of white satin, finished with rosettes of velvet.—Exchange.

CULINARY HINTS.

A few slices of bacon, under and over roast lamb, to improve the flavor of the gravy.

About a third the quantity in dates added to very tart apples for sauce.

When frying cakes, setting them in a colander set on a plate.

A teaspoonful of mustard mixed with the water and molasses which is poured over baked beans.

Roasting a young fowl for twenty minutes before cutting it up for soup.

Turning fruit which has begun to work into pickles by draining, boiling up the liquor, skimming, adding half a teacupful of vinegar to two and a half quarts of juice, sugar to make syrup, spices to taste, tied up in a bag. When liquor is clear, adding fruit, heating gradually and boiling four minutes before canning.

Clarifying soup by skimming while heating, adding a little cold water, after boiling, straining—if necessary, twice—mixing one egg and broken shell with one teacupful of cold water, then with one teacupful of hot soup, then adding to soup, boiling up, setting back and when somewhat cold, straining.

To prevent home-tried lard from becoming rancid, adding one teaspoonful of fine salt to each quart of hot lard and cooking a little after adding.

Jelly, of the surplus juice in cans of fruit, made with gelatine.—Good Housekeeping.